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Control of public education in the United States is vested in the citizenry. Evaluation is a necessary function of control. The gap between occupational and general education must be narrowed by recognition that both may contribute to occupational choice, competence, and advancement, and also to the objectives of general education. As unsystematic as citizen evaluations have been, their effects upon occupational education have been great. Therefore, there is a need for a more equitable representation of the total public in the evaluation of occupational education and its consequent remodeling. The major purpose of citizen evaluations should be to influence the development of adequate public policies which would make possible more realistic and effective occupational education for all who would receive it in public institutions. Typically, evaluations have been of programs, teachers, students, and former students and facilities. There has been little attention to public policies and attitudes responsible for the conditions discovered, or to the processes by which public policies of occupational education are derived. Proposed procedures for a citizen evaluation are outlined. A 70-page bibliography and reference list is appended. (DM)

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CITIZEN EVALUATION OF PUBLIC OCCUPATIONAL EDUCATION

H. M. HAMLIN
SPECIAL CONSULTANT
CENTER FOR OCCUPATIONAL EDUCATION

Center Monograph No. 1

CENTER FOR OCCUPATIONAL EDUCATION
NORTH CAROLINA STATE UNIVERSITY AT RALEIGH
1967

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CITIZEN EVALUATION OF PUBLIC OCCUPATIONAL EDUCATION

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CENTER MONOGRAPH No. 1

CENTER FOR OCCUPATIONAL EDUCATION

North Carolina State University at Raleigh

1967

Project No. DAVR 5

Contract No. OE-5-85-107

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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PREFACE

The problems and issues inherent in the evaluation of occupational education are multifarious. So, too, are the scope of evaluation and the points of departure from which evaluation may be attacked. It can be argued that there is not a system of evaluation, but systems of evaluation. Further, it may be argued that there is not an underlying theoretical framework, but theoretical frameworks. Data from which decision makers in occupational education may base expanded and extended programs of necessity are derived from a variety of sources and approaches.

Despite these statements, there is a definite need for an examination of the problems and issues underlying the evaluation of occupational education from a broad panoramic perspective. Such a perspective is presented in this Monograph.

The author of the Monograph is a recognized authority and leader in occupational education. The perspective underlying the Monograph has been generated from a full and complete lifetime of dedicated service to occupational education by Dr. H. M. Hamlin, scholar, author, and researcher. He has retired from two institutions--as Chairman of the Department of Vocational, Technical and Practical Arts Education at the University of Illinois and as Professor of Education at North Carolina State University at Raleigh. He has served in many institutions, and has been a Research Consultant for the Program for Research and Development in Vocational-Technical Education at the University of California at Berkeley and Consultant to the Center for Research and Leadership Development in Vocational and Technical Education at the Ohio State

University. Currently he is Special Consultant to the Center for Occupational Education, which he was instrumental in establishing prior to his retirement from North Carolina State University.

This Monograph emerged from a project entitled "Evaluation of Occupational Education," which was one of the six subject matter areas included in the original proposal for the Center for Occupational Education. The Center is indebted to Dr. Hamlin for this significant contribution to occupational education.

John K. Coster, Director
Center for Occupational Education

FOREWORD

Citizen evaluation of public occupational education is probably the most important factor affecting it. On the bases of their evaluations, citizens assign responsibilities for occupational education and provide or withhold funds, personnel, and facilities.

This publication is designed to stimulate thinking and to promote discussion in the market places for ideas. It stresses the critical importance of evaluations by citizens, suggests issues with which citizens should be concerned as they evaluate, and offers suggestions for organizing and conducting citizen evaluations.

It is regarded as a pioneering publication in a neglected field that should receive attention from those engaged in research and development.

The typical tools of research will have only limited usefulness in this field. New approaches will have to be devised. Research will have to be linked closely to action.

This publication aims only to present some of the most basic considerations. It is to be followed by projects in four states, sponsored by the Center for Occupational Education, North Carolina State University, in which detailed procedures will be worked out and tried. Communication with others who have similar interests is sought.

H. M. Hamlin

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SECTION I

DEFINITIONS OF TERMS

"All great revolutions are preceded by a revolution in the dictionary," Irving Bobbitt.[1]

Evaluate: "To examine and judge regarding worth, quality, significance, degree, or condition" (Webster's Dictionary).

Values: Conceptions of desirable states of affairs utilized in selective conduct as criteria for preference, choice, or justification of proposed or actual behavior. (Adapted from Robin J. Williams, Jr. Annals of the American Adademy of Political and Social Science, 371:1: 23, May, 1967.)

Occupational Education: Education designed to contribute to occupational choice, competence, and advancement.

Vocational Education: Specialized education for an occupation other than a technical or professional occupation.

Technical Education: Specialized education for occupations ordinarily requiring two years of preparation beyond the high school which emphasizes the science, mathematics, and laboratory procedures related to the occupations for which the students are preparing.

Education for the Professions: Specialized education for occupations requiring four or more years of college training.

Practical Arts: Subjects such as agriculture, business, home economics, and industrial arts which are considered to be a part of general education but which contribute to occupational choice, competence, and advancement.

Area Schools: Junior and community colleges, vocational schools, technical institutes, branches of universities providing programs requiring less than four years, and high schools serving areas larger than local school districts.

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[1] Quoted by Walter W. Heller, New Dimensions of Political Economy (Cambridge, Massachusetts: Harvard University Press, 1966), p. 18.

Generalized Occupational Education: Education provided in the elementary schools and high schools which is intended to acquaint with the world of work, assist in the choice of an occupation, aid in planning specialized vocational, technical, or professional education, and provide knowledge and skills usable in a variety of occupations.

Organic Curriculum: A curriculum combining and interrelating occupational and general education.

Policy (for public education): An integrated set of guiding principles for the operation of an educational agency over a long period, enacted by an official body: a governing board, a legislature, the Congress of the United States.

Program (of a public educational agency): A comprehensive plan, developed by a professional staff, designed to accomplish the purposes stated in official policy.

Procedures (of a public educational agency): Rules and regulations in keeping with official policy, formulated and adopted by a professional staff, for the day-to-day operation of the agency.

Citizens Consulting Committee: A committee of lay citizens without legal authority advisory to a governing body regarding policy or advisory to a professional staff regarding program and procedures or one having both functions.

SECTION II

OVERVIEW

In the United States control of public education is vested in the citizenry. In exercising their control citizens must and do evaluate it. If there is conflict between lay citizens and professional educators, the evaluations of the lay citizens or their representatives prevail.

It is therefore essential that the judgments of citizens be soundly and fairly made. Thoughtful citizens, aware of the importance of occupational education, are asking for better means of judging it.

Citizens are responsible for public policy for education. Their obligation is to develop "not rules for the passing hour, but principles for an expanding future."[2]

Evaluations by citizens should be, primarily, evaluations of their own performance and that of their elected officials. There must not be occasions for blaming professional employees for circumstances beyond their control. The fair-minded citizens who can be recruited for evaluations can be trusted to assign to the citizenry the praise or blame it deserves.

Evaluations may conform to traditional concepts or they may open new horizons. The latter approach is suggested in this publication. Evaluation may be a major means of educating citizens (and professional educators) about the possibilities of occupational education.

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[2] Supreme Court Justice Benjamin Cardozo quoted in, News and Observer (Raleigh, North Carolina), October 13, 1967.

New and Broadened Concepts are Needed

The improvement of citizen evaluation of public occupational education starts with the adoption of concepts and terminology which do not limit thinking as it is limited by concepts and terminology now commonly in use. Terms to be used in this publication have been defined on pages 1 and 2.

Underlying all useful attempts to improve evaluation is the concept that everyone is in need of some type of occupational education provided at the times it is needed.

Thinking about evaluation is broadened and made more realistic when it is recognized that occupational education includes much more than the federally-aided program of vocational and technical education.

Occupational education should be viewed as a continuum including the basic education essential for occupational competence, introduction to the world of work, vocational counseling, vocational education, technical education, and education for the professions.

Perspective in evaluation is gained when one looks at the entire range of public educational institutions from the nursery school through the university, including those for adult education, and decides what each unit should contribute.

In such a view the public area schools loom large. They are developing rapidly and can be expected to become available everywhere. They are midway between the local schools and the colleges and will have important effects upon both. Because they enroll both full-time students and adults attending part-time, they may serve almost everyone at some time in his life.

The roles of the colleges and universities in occupational education must not be separated artificially from those of the local and area schools, especially at a time when more than half of the graduates of many high schools are attending colleges and 40 percent of those who attend do not remain to be graduated. A better balance between education for the professions, the specialty of the colleges, and education for the nonprofessional occupations must be sought.

The gap between occupational and general education must be narrowed by recognition that both may contribute to occupational choice, competence, and advancement and also to the objectives of general education.

Occupational education in the public schools and colleges cannot be evaluated accurately unless there is consideration of the much larger programs conducted privately and the programs of public agencies other than the schools and colleges.

It is not enough to look at the personnel, program, facilities, and financing for occupational education or at the occupational performance of graduates. There must be a search for the causes of the situations discovered, particularly for defects in public policy for occupational education for which citizens are responsible.

The Special Role of Citizens

Citizen evaluations compel decisions regarding the respective roles of citizens and educators. The most commonly accepted division gives lay citizens the responsibility for enacting policy and seeing it is executed and professional educators the responsibility for advising about and executing policy. Under this arrangement, the program and the procedures of a school or college are the responsibility of its professional staff. They must, of course, be in line with official policy.

Lay citizens are unable and incompetent to do all of the evaluating of occupational education that must be done. There must be day-to-day evaluation by the professional staff of the programs and procedures for which they are responsible. One function of citizens is to provide the staff with the time and means to make these evaluations. School records and data collected by the professional staff are needed in citizen evaluations. One effect of citizen evaluations is to create a demand for data a staff can collect and may properly release for use in these evaluations.

Citizen evaluations are ineffective unless the machinery is provided for getting the recommendations from them considered and adopted by the official boards and the professional staffs. To insure favorable consideration by these groups there must be continuous liaison during an evaluation between the citizen evaluating group and those responsible for school policies, programs, and procedures.

Values as Lodestars in Evaluation

Basic to the whole evaluation process is some measure of agreement by lay citizens, boards, and staffs regarding the values to which occupational education is to contribute. Section X indicates some American commitments which have high relevance to public occupational education. Experience indicates that it is possible to achieve more agreement about values and their implications than is usually conceded.

Sharing Responsibilities for Citizen Evaluation

The responsibilities of governing boards have become heavy. Many boards do not represent adequately their large constituencies. Citizens committees who advise boards of education have come into use to secure broader citizen participation and understanding and to relieve overworked boards. Inevitably, these committees become involved to some extent in evaluation. Special citizens committees for evaluation have sometimes been used. Citizens committees are also used extensively in occupational education to advise professional staffs. An evaluation of occupational education involves attention to the organization and functioning of these committees.

Citizen evaluation of occupational education sets the standards to which it may rise but may seldom exceed. Schools are handicapped when the citizens responsible for them do not know what good occupational education might accomplish or what occupational education in their own systems is accomplishing. Citizen evaluation, if well conducted, is perhaps the best means by which the thinking of key citizens can be modified and the expectations of citizens generally can be changed.

Objective and Subjective Aspects of Evaluation

To evaluate, as the definition suggests, is to judge regarding worth, quality, and significance. The subjective aspect of evaluation dominates the objective aspect. The dangers of subjective judgments are reduced when evaluators adhere to values long tested and accepted. Subjective judgments must always be tempered, to the extent that they can be, by objective facts. Everything that can be even crudely measured should be measured, but measurement is a part of the evaluation process, not the whole of it.

Lay-Professional Cooperation in Evaluation

Much is known regarding the conditions required to provide good occupational education. What is known should be applied in evaluations. Citizen evaluators must avoid judgments based wholly on their own limited information or wholly upon information provided by professional educators. The best evaluations result when lay citizens and professional educators pool their knowledge.

Much about occupational education is unknown by the professionals because there has been only limited experience in and study of some of its facets. Citizen evaluators should encourage adherence to tried and tested practices but should urge cautious advances into large and important areas now almost untouched. Research and development projects in new areas should be a part of every program of occupational education.

SECTION III

CITIZEN RESPONSIBILITIES IN EVALUATION: HISTORICAL AND LEGAL BASES

The first public school systems in the United States were set up by "towns" in New England. Policy for them was made at "town meetings," which all citizens might attend. "School committees" were later established by the town meetings. Their only function was to evaluate the schools and report their evaluations at town meetings. These committees evolved into local boards of education.

Some boards of education are still responsible in various ways to city councils, county commissioners, mayors, and judges. All have their powers and the limitations upon their powers defined by their state legilatures. The courts have given liberal interpretations of the powers of boards of education, holding that any power not denied them by the state can be exercised.

Boards of education are creatures of their states. Board members are state officials even when they are elected locally. Boards may be dissolved or reorganized by state legislatures.

Although the forms by which the evaluation function is exercised have changed, citizens have always retained it. They express their evaluations in the creation of public opinion, in the election of board members and other officials, in proposals for and reactions to legislation, and (most effectively of all) by providing or withholding funds for particular kinds of education.

Governing boards are still responsible for evaluating the schools and colleges committed to them. Dr. Arthur H. Rice, former editor of

Nation's Schools, has written recently that "the biggest responsibility of the school board today is to evaluate the program that has been brought to it by its professional staff or the program that it, as a board, has helped to plan, and then to evaluate the activities of the staff in achieving that program."[3]

Legislatures reflect their evaluations in appropriations and in other actions. Frequently they provide special evaluations and act upon their findings. Because legislators and members of governing boards have, or may have, decisive roles in the evaluation of public occupational education, great care should be exercised in choosing them. Education for their special responsibilities and information relevant to the decisions they face should be available to them.

The Congress of the United States has authorized two major evaluations of vocational education, one reported in 1914 and one in 1962. These made major contributions to the passage of the Smith-Hughes Act of 1917 and the Vocational Education Act of 1963. The latter act provides for evaluations each five years with reports to the Congress. The first of these evaluations is now under way and will be reported in 1968.

Public education, once a local function, has become a function also of the state and national governments. Citizens exert pressure upon all three forms of government. Types of education neglected by a school district may be fostered by a state or by the federal government or both.

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[3] Arthur H. Rice, "School Boards Reach New Heights of Importance," Nation's Schools, 80:3:10, September, 1967.

A state has authority over all public education within it except as its authority is limited by the federal Congress and by rulings of the Supreme Court of the United States. There are great variations in the extent to which the states retain their authority over public education or delegate it. At various times and places the authority of the state has been almost completely retained or almost completely delegated. Presently there are great differences in the extent and nature of state control.

There has been federal aid to education since the national government was constituted and no federal-aid legislation has even been held unconstitutional. Recently federal appropriations for education have increased enormously. Aid has been provided for private as well as public schools and for educational agencies affiliated with no school system.

Citizens wishing to exercise their evaluating function must find ways of influencing the local, state, and federal governments. As area schools are developed and interstate cooperation in education is practiced, additional arrangements for citizen participation in evaluation become necessary.

Public Occupational Education is Conducted for the Benefit of the Public

Evaluators may think that occupational education is conducted only to benefit individual students and employers. However, public education including public occupational education, is provided for the benefit of the public. The courts have consistently stated that this is the case.

The Supreme Court of Vermont has commented as follows: "While most people regard the public schools as means of great personal advantage to the pupils, the fact is often overlooked that they are governmental means of protecting the state from the consequences of an ignorant and incompetent citizenry."[4]

The Illinois Supreme Court has held that "the public school system of the State was not established and has not been maintained as a charity or from philanthropic motives."[5]

Dr. Newton Edwards, a leading authority on school law, has said that "the primary function of the public school, in legal theory at least, is not to confer benefits upon the individual as such; the school exists as a state institution because the very existence of civil society demands it."[6]

Constitutional Barriers to the Development of Occupational Education

Some states have written into their constitutions provisions which limit the development of the occupational education.

The Missouri constitution, adopted in 1948, provides that funds for public schools will be used to serve only those under twenty-one years of age. It allows adult education "provided from funds other than ordinary school revenues."[7]

The Oklahoma constitution preserves an antiquated concept of occupational education: "the Legislature shall provide for the teaching of the elements of agriculture, horticulture, stock feeding, and domestic science in the common schools of the State." It limits public education to children."[8]

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[4] Newton Edwards, The Courts and the Public Schools (Chicago: University of Chicago Press, 1955), p. 26.

[5] Ibid., p. 305.

[6] Ibid., p. 24.

[7] U. S., Constitution, Article IX.

Several state constitutions are being rewritten. It is incumbent upon citizens to see that they include general provisions favorable to the development of occupational education over a long period but exclude specific provisions which legislatures and governing bodies can better make as times and conditions change.

Boards and Legislatures Which Go Beyond Their Policy-Making Function

Although governing boards and legislatures are generally held to be responsible only for enacting policy, they have been permitted to go far beyond these functions. The Supreme Court of Vermont has set a precedent for limiting board functions with the following ruling:

"The law does not contemplate that the members of a board of education shall supervise the professional work of teachers, principals, and superintendents. They are not teachers, and ordinarily, not qualified to be such. Generally they do not possess qualifications to pass upon methods of instruction and discipline. The law clearly contemplated that professionally trained teachers, principals, and superintendents shall have exclusive control of these matters."[9]

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[8] *Ibid.*, Article XLII, Sections 1 and 7.

[9] Quoted by Robert R. Hamilton and E. Edmund Reutter, Jr., *Legal Aspects of School Board Operation* (New York: Bureau of Publications, Teahcers College, Columbia University, 1958), pp. 38-39.

Complementary Development of Local, State, and National Citizen Evaluation

There is real danger of conflict as the school districts, the states, and the national government apply differing criteria in the evaluation of occupational education. Currently there is much emphasis in Washington upon the cost-benefits approach to evaluation.[10] This approach has a special appeal to businessmen and industrialists accustomed to estimating possible profits before making their investments. It is, however, a concept not easily applied to public education and its application in occupational education, the pahse of education to which it is apparently most applicable, could be disastrous. Elaine Exton, one of the most astute observers of the educational scene at Washington, has recently written:

> "The big question is, will state and local systems depend on the federal normative models for evaluating and changing the educational process or will they build models more appropriate to their individual needs and value judgments? If they fail to do this, they can expect that federal control of the schools will grow."[11]

Citizen Evaluating Committees

The individual citizen cannot possibly be informed about all of the types of public education which he may share in evaluating. Much of the discontent with citizen evaluation results from judgments citizens make with too little supporting evidence. If citizen evaluation is not to be discredited completely, responsibilities for evaluation must be delegated to carefully selected citizens who will give time to it and use the knowledge and wisdom of professional educators.

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[10] Infra., Section VII.

[11] Elaine Exton, "USOE Uses Computer Based Models to Evaluate Education," American School Board Journal, 154:1:44, January, 1967.

The tasks of modern governing boards are so burdensome that they cannot possibly give to evaluation the attention it deserves. Their alternatives are (1) to rely on the judgments of the schools' professional staffs, (2) to call in outside evaluators, or (3) to use a system of citizens committees which has the help of the professional staff and outside consultants. All of these approaches are useful but the last of these alternatives is the most promising. It preserves citizen participation in evaluation and provides both lay and professional judgments for the guidance of the citizenry. If it is to prove satisfactory, extreme care must be exercised in defining a committee's functions and relationships and in choosing the members of the committee.

There are proper questions about separating the evaluating function of citizens from their other functions which relate to public education. A general citizens' committee could assume an evaluating function; it must either evaluate or depend on others' evaluations. Experience has shown, however, that a general committee has too many other responsibilities to do a good job in evaluation.

There is precedent for separating the evaluating function from other functions. Evaluations by neutral outsiders are a part of the educational systems of many countries and have been used widely in the United States. Evaluations by persons closely associated with school systems (boards, advisory committees, staff members) tend to be biased toward the programs offered. Like parents, they are often poor judges of their offspring. A spearate system of citizens committees for evaluation has the added advantage of involving in school affairs another group of influential citizens who need to be educated about occupational education.

There is a special advantage in using a separate organization for evaluating occupational education. The citizens advisory committees that have been used have most frequently been set up by special fields: a craft committee for each of the trades taught, a committee of farmers for agricultural education, a committee of merchants for distributive education, and other committees for special fields. An evaluating committee should, as a very minimum, view all occupational education within a school system. If possible, it should be concerned also with the occupational education in a considerably larger area if it is to arrive at sound conclusions regarding the program in a single district. An evaluating group of high ability and broad interests may be an effective check upon the specialized advisory committees.

Whatever the arrangement for citizen participation in the evaluation of occupational education, responsibility for evaluation and the policy changes evaluations imply rests with the official governing bodies, each of which is responsible to its public.

Legal Status of Citizens Committees

Most citizens committees have no legal status. They are the creatures of the policy bodies which establish them or they exist, unauthorized by official bodies, as appendages to school systems. An exception is the requirement of the National Vocational Education Act of 1963 that each state receiving funds shall have an advisory committee. There is no requirement that the committee be composed of lay citizens.

Some citizens committees effective in evaluation are totally independent of school systems and attempt to make their evaluations count by influencing governing bodies and the public.

The Attrition of Citizen Responsibilities in Public Education

There is widespread concern, much of it unjustified, that the federal government is to take over public education. There is less citizen concern than there should be regarding the increasing influence of non-governmental agencies over the schools.

Curricula and teaching aids are increasingly devised by private agencies. The schools have been found to be rich new markets for private enterprise. Public school staffs, lacking time and funds for curriculum planning and the equipment and aids they need, welcome help from the outside.

The principal reasons for increasing outside control of the schools are citizen apathy and, more commonly, lack of adequate means whereby citizens may express themselves about their schools.

A contributing factor in some situations is the attempt by professional educators to exclude citizens from decisions about the schools. However, exclusion is never total. Citizens hold the purse strings and have other effective ways of influencing public education. Often, after a long period of acceptance of things as they are, there are violent eruptions of public opinion and major changes in the schools are made. Continuing citizen participation, including participation in evaluation in cooperation with the professional personnel, is much safer and much more likely than citizen revolts to result in improved occupational education.

Decentralization as a Means of Promoting Citizen Participation

Eighty-five percent of the population of the United States now lives in metropolitan areas, where citizen participation in public education has most deteriorated. There are attempts, here and there, to decentralize the large city systems. Rempson has recently stated well the case for decentralization, relating it to the need for improved occupational education for youth and adults.[12]

Decentralization has also begun in the South where, for various reasons, an unusual amount of state control had developed. North Carolina provided in 1967 for local election of the members of school boards in most administrative units. Previously the General Assembly had chosen the board members.

In the North and in the South, the members of racial and other minority groups have had little part in determining policies for public education. As increasing numbers from these groups go to the polls, their participation in policy-making for public education can be expected to increase. One of their principal hopes is in public education and one of their chief grievances is the denial of the kinds of education they need, including education that will better fit them for employment.

Dr. John W. Gardner, Secretary of Health, Education, and Welfare, has recently said: "One thing we are going to have to do is restore a sense of community and participation at the local level, which is the only level that will have immediate meaning for large numbers of Americans."[13]

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[12] Joe L. Rempson, "Community Control of Local School Boards," Teachers College Record, 67:7:571-578, April, 1967.

[13] Address presented at the University of North Carolina at Chapel Hill, October 12, 1967.

SECTION IV

EFFECTS UPON OCCUPATIONAL EDUCATION OF CITIZEN EVALUATIONS

Unsystematic as citizen evaluations have been, their effects upon occupational education have been great and frequently critical.

Often the media through which citizens' evaluations are expressed have been lay advisory committees, provided and appointed by vocational educators or school administrators. In other cases group representative of special interests have insisted that education better related to their businesses or industries be provided. When special interests have dominated, occupational education has been skewed so that some types are emphasized and other types are neglected.

The comprehensive lay organizations interested in public education have not given occupational education the attention it deserved. Examples of organizations which have persistently neglected it are the National Congress of Parents and Teachers and the National School Boards Association. Their neglect has resulted in relative over-emphasis of other types of education and has paved the way for special interests to promote particular kinds of vocational-technical education. Recently two new organizations of citizens broadly interested in public education have been giving attention to occupational education: The Compact Among the States and the National Committee for Support of the Public Schools.

Vocational Education in Agriculture has been supported and influenced by agricultural organizations. Home Economics Education has had strong backing from women's organizations. Industrial Education has often been promoted by industrial and labor organizations. Distributive Education is beginning to receive important support from business. Education for the health occupations has supporters in the medical and nursing professions.

The local and area schools have been affected by the evaluations of groups who do not find the products of the schools suited to their special needs and who can demand particular kinds of training. Such a group is perhaps most effective in an area with one industry or a limited number of industries. Where businesses and industries are more varied, those most insistent may have their needs met while others' needs are neglected.

Pressure groups are also effective at the state level. In many states separate systems of vocational and technical schools have been set up by state legislatures prodded by business and industrial interests. Usually they have been provided because these interests believe that the schools and colleges are not doing what they should be doing. Often they believe that the existing schools and colleges are incapable of providing the kind of education they want.

Low estimates of the schools' ability to provide vocational-technical education have also resulted in a variety of extra-school programs sponsored and financed in part or wholly by the federal government. The first important move of this type was the establishment in 1914 of the Cooperative Extension Service. Although the Service has been associated with the land-grant colleges, it has largely by-passed the local and area schools. Later programs include those under the Manpower act, the Economic Opportunity Act, and the area rehabilitation and redevelopment acts. In recent years more federal money for education than ever before has been spent outside the "regular school system" but there have been increased efforts to include the schools with other agencies in broad programs.

Many of the special agencies which have been set up at the insistence of pressure groups reflect over-simplified concepts of occupational education. There have been sad experiences in providing training intended to lead to employment for persons whose basic education has been inadequate. Legislators seem to be grasping the fact that education has to be improved across the board and from the kindergarten on if a competent labor force is to be produced.

The foregoing comments illustrate the need for a more equitable representation of the total public in the evaluation of occupational education and its consequent remodeling. An obligation rests upon those responsible for the schools and colleges to secure representative citizen participation.

SECTION V

PURPOSES AND EXPECTED OUTCOMES OF CITIZEN EVALUATIONS

The purposes and the expected outcomes of citizen evaluations have been implied in earlier statements. Perhaps they need to be stated more explicitly.

The major purpose, as this author views it, would be to influence the development of adequate public policies which would make possible more realistic and effective occupational education for all who should receive it in public institutions.

There are secondary purposes which may result in outcomes almost as important:

1. Acceptance by the citizenry of new and broader concepts of occupational education
2. Integration of the efforts in occupational education of various public agencies and better definition of the relationship of public to private agencies
3. Better use of the resources available for occupational education
4. Closer agreement and improved cooperation between the citizenry and the professional educators
5. Clearer relationships between "general" and occupational education and closer liaision between those working in each field
6. Development of arrangements for continuing evaluation by citizen and by the schools' professional staffs

Citizens are obligated to provide the conditions which make good occupational education possible, to indicate desirable and feasible objectives, and to support their desires with the funds and facilities needed. They cannot be intelligent in performing these functions without prior evaluation of the occupational education already available.

The outcomes to be desired can be had only if the citizen evaluators are representative of the total citizenry. Their perspective must include all public education. They must see the important role of occupational education in each unit within the system of public education.

The outcomes of evaluation will not be as great when occupational education is evaluated separately as they would be if it were included in an evaluation of all public education. Occupational education is so interwoven with other types of education that a separate study of it is artificial and misleading. Separate evaluations are warranted only when general evaluations are lacking or when occupational education is being slighted in the general evaluations conducted.

Fair evaluation of the whole of public education is likely to lead to the changes which would most benefit occupational education. Occupational education is severely handicapped by the organization provided for public education and by the means used to finance it. It is unlikely that major changes in organization and finance beneficial to occupational education will be made until the public is convinced that these changes would be good for all public education.

Limited studies and widespread observation indicate that adults of middle age or older tend to think of vocational education as they knew it when they were in school and vocational education was in its infancy. The concept of "occupational education" has not gained general acceptance in the profession and is almost unknown to laymen. There is reason to believe that it is a concept far more congenial to lay thinking than the concept of vocational education most laymen have.

One of the more generally held ideas is that vocational education is for the scholastically incompetent. Confirmation that this is the case has been provided in a current study in 42 states by the Program for Research and Development in Vocational-Technical Education, University of California at Berkeley.

An evaluation of public occupational education should give attention to the concepts of it held by the citizenry and to the means for providing the public with the information about modern occupational education that it sorely needs.

SECTION VI

ISSUES FACING CITIZENS IN THE EVALUATION OF PUBLIC OCCUPATIONAL EDUCATION

Citizens evaluating public occupational education face a multitude of difficult choices, which are illustrated by the data and opinions which follow. Some of the issues are these:

1. What expenditure for occupational education is justified?
2. What is included in occupational education?
3. Has public occupational education been badly organized?
4. Should occupational education serve a community or a broader area?
5. For whom should it be provided?
6. Is occupational education serving our youth well?
7. Has the Smith-Hughes Act been unduly influential in determining the occupational education the schools provide?
8. Is occupational education in the public schools well related to that conducted by other agencies?
9. Has there been a resort to short-cuts in occupational education which do not take into account the long, slow process of human development or the need for adaptability?
10. Has there been too little recognition of occupational mobility and migration in providing occupational education?
11. How adequate is the occupational education provided by the smaller school systems?

12. What contributions to occupational education should be expected from the elementary shcools and the junior and senior high schools?
13. What percentage of secondary-school pupils should be enrolled in vocational education courses?
14. Should work experience be a part of secondary education?
15. Should vocational education be eliminated from the secondary schools or be redirected?
16. How important are the public area schools in providing vocational-technical education?
17. Are too many high school graduates going to college rather than to schools providing vocational and technical education? Are we spending too much on education for the professions in proportion to our expenditures for other forms of occupational education?
18. Have we used too many of our resources in providing vocational education for youth under 16 years of age?
19. Is sufficient attention given to the occupational education of adults?

Can we provide job and career opportunities which utilize fully the talents and capacities of all Americans? What should be the contribution of public occupational education to this end?

Comments on these issues from many points of view are included in the pages which follow.

What Expenditure for Occupational Education is Justified?

The most critical decisions about public education are frequently made when funds to support it are voted or withheld.

The costs of public education have risen precipitately in recent years. Rough estimates would be $225 million in 1900, $8.5 billion in 1955, and $40 billion in 1967-68. These costs are only those for the "formal" agencies of public education: elementary schools, secondary schools, area schools, and colleges. Other massive public costs are for education and training in the Armed Forces and the various programs of the federal and state governments conducted largely outside the schools and colleges.

There is special concern about the expenditures for public occupational education. The costs of specialized vocational and technical education are high in comparison with those of some other types of education because there must be competition with business and industry for competent personnel, modern equipment is expensive, and class size is unusually small. Business and industry are already expending amounts estimated to be as high as $20 billion annually for the education of their personnel.

The United States Chamber of Commerce has recently suggested that its members consider the allocation to vocational education of a larger percentage of the federal funds for education, pointing out that, of the $1.8 billion now provided, "only $260 million is authorized for vocational training in high schools, area vocational schools, community and junior colleges, and technical institutes." Continuing, the Chamber's publication says "Logically, it would seem, this institution (the public school) would be the key mechanism in our efforts to train people for productive work. Instead a multitude of 'crash-type' programs have mushroomed. Why?"[14]

Higher costs of public education are in prospect. There are predictions that the cost of the "regular" system of public education will rise from $40 to $70 billion during the next few years. Taxpayers' revolts are under way and more predictable.

There have been recent signs that the taxpayers across the nation favor increases in the funds for occupational education though they may not favor increases for some other types of public education. They anticipate an economic return from occupational education that would justify the investments made.

What is Included in Occupational Education?

Dorothy L. Moore would include "such things as: the socialization of the child which makes him willing to accept the responsibilities of work; social and communication skills of occupational significance; understanding of the occupational mobility system and the occupational and social status systems; the relationship between education and occupational opportunities; the manner in which productive work is organized at present, and historically; and an understanding of the respecitve roles of labor, management, and government in the modern economy, and how these evolved."[15]

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[14] U. S. Chamber of Commerce, "Vocational Education," Here's the Issue (Washington, D. C.: The Chamber, 1967), p. 1.

The Panel of Consultants on Vocational Education has stated that "all education contributes to vocational competency."[16] Explaining its stand, it has added: "Skills in reading, mathematics, and other general education fields are essential for acquiring specific vocational competencies and the higher levels of education needed for many occupations. It is therefore essential for the schools to increase their efficiency in teaching the fundamental school subjects to all students. The early school leaver who has not acquired the basic skills is not only unable to find satisfactory employment but is also greatly handicapped in acquiring specific vocational training as an adult."[17]

Harold L. Wilensky has gone further in stating that "the best vocational education is a good general education, accenting basic literacy, disciplined work habits, and adaptability."[18] His view is that the frontier programs of vocational education in the United States--those reflecting vocational goals appropriate to our modern society--are built upon a solid general education.

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[15] Dorothy L. Moore, A Preliminary Draft of a Study of Vocational Education in Hawaii Public Secondary and Vocational Schools (Part II, Honolulu, Hawaii: Legislative Reference Bureau, University of Hawaii, 1966), p. 2.

[16] Panel of Consultants on Vocational Education, Education for a Changing World of Work (Washington, D. C.: U. S. Government Printing Office, 1963), p. 5.

[17] Ibid., p. 5.

[18] Harold L. Wilensky, "Careers, Counseling, and the Curriculum," The Journal of Human Resources, 2:1:33-34, Winter, 1967.

Dr. William P. McLure of the University of Illinois believes that "the teachers of language arts may contribute as much, if not more, to the vocational competence of a high school graduate than the teachers of 'vocational' courses."[19]

Various efforts are under way to provide "organic curricula" combining general and vocational education or "generalized occupational education" to precede specialization in a particular vocational or technical program. Morgan and Bushnell have proposed a framework for an organic curriculum.[20] Face and his associates are designing a high school curriculum intended to produce a better understanding of industry.[21] The Massachusetts Institute of Technology is working upon a broader approach to the planning of secondary-school programs in occupational education.[22]

An extensive program at the Ohio State University is redesigning the content in Industrial Arts. One year in the program is devoted to the construction industry.

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[19] William P. McLure, Federal Policy and the Public Schools (Washington, D. C.: American Association of School Administrators, 1967), p. 7.

[20] Robert M. Morgan and David S. Bushnell, "Designing on Organic Curriculum" (Washington, D. C.: Bureau of Research, U. S. Office of Education, 1967), 16 pp. (Mimeographed.)

[21] W. L. Face, E. R. F. Flug, and R. S. Swanson, "A Conceptual Approach to the Study of American Industry," American Vocational Journal, 40:3:15-17, March, 1965.

[22] Final Report of the Summer Study on Occupational, Vocational, and Technical Education (Cambridge, Massachusetts: Institute of Technology, 1965), 121 pp.

The Division of Vocational Education, New Jersey State Department of Education, is conducting a project, funded by the Ford Foundation, called "Technology for Children."[23]

Has Public Occupational Education Been Badly Organized?

Dr. John W. Gardner, Secretary of Health, Education, and Welfare has said that "our aspirations have outrun our organizational abilities."[24] On another occasion he made the following comments, which have important implications for occupational education: "The old system of governmental arrangements--unmanageable city government, disjointed relations between federal, state and local levels, and uncoordinated federal programs--is dying. . . . But the new system has not yet taken shape, and that fact is of critical importance for our future. It means that we still have major choices."[25]

Seven volumes on educational reorganization, administration, and finance are now being prepared by the American Educational Research Association for release in 1969.[26]

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[23] Robert Worthington, "Planning and Strategies for Developing More Effective Teacher Education Programs," Institute on Critical Issues in Vocational and Technical Teacher Education in Small Colleges and Universitites. A. P. Bell,editor. (Center Seminar and Conference Report No. 8. Raleigh, North Carolina: Center for Occupational Education, North Carolina State University, 1967), pp. 54-60.

[24] John W. Gardner, "The Administration: A Sense of What Should Be," Time, 89:21, January 20, 1967.

[25] Elaine Exton, "A Time for School Boards to Study the New Federal Partnerships," American School Board Journal, 154:3:43, March, 1967.

[26] The Department and Graduate School of Education, Newsletter, University of Chicago, June, 1967, p. 5.

Should Occupational Education Serve a Community or a Broader Area?

Dr. Grant Venn has stated that "the choice among occupational offerings is in the hands of local boards and administrators, who are under pressure to tailor the program to the more immediate needs of the local (tax-paying) industry. On the other hand, the industrial complex of the nation is being made and remade so swiftly, and plant and worker mobility are so high that narrow, local training may have short relevance for the new workers. This again points to the need for a more broadly based vocational-technical education, one consonant with long-term regional and national manpower demands."[27]

For Whom Should Occupational Education be Provided?

Dr. John W. Gardner has cited the need of educating all to the limits of their possibilities. His comment has special relevance for occupational education: "A society such as ours has no choice but to seek the development of human potentialities at all levels. It takes more than an educated elite to run a complex, technological society. Every modern, industrialized society is learning that hard lesson."[28]

Mr. Terry Sanford, former Governor of North Carolina, writing of his experiences as governor, has said: "It was and must always be our purpose to develop a system of schools which neglects no child and disregards no talent. If the old ways didn't work, or weren't fully effective, we couldn't give up. We had to try again, or redesign, or go another way, for we could not waste the resources of the state."[29]

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[27] Grant Venn, Man, Education, and Work (Washington, D. C.:American Council on Education, 1964), p. 33.

[28] John W. Gardner, Excellence (New York: Harper and Row Publishers, Inc., 1961), p. 77.

The New York State Board of Regents has announced that its policy is "to provide appropriate occupational education for state residents of varying ages, education, and needs, wherever they live."[30]

The American Association of School Administrators adopted the following resolution in February, 1967: "Vocational-technical education should receive the emphasis and respect it deserves and should be available to all who by inclination and talent need such opportunity."

The national Panel of Consultants on Vocational Education, which reported in 1962, found that vocational education was not available in enough high schools. In a special study by the Panel of 3,733 public high schools in six representative states it was found that only 5 percent offered trade and industrial courses and less than half offered courses in homemaking or vocational guidance. The Panel also found that students were not being prepared for a sufficient variety of jobs."[31]

Disparities among the states in enrollments in the various vocational programs are striking. In 1963-1964, California enrolled 651 in in distributive education for each 100,000 of its 1960 population; Virginia, 522; and Florida, 401 while Alabama enrolled 36 and Connecticut, 21.[32]

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[29] Terry Sanford, But What About the People? (New York: Harper and Row Publishers, Inc., 1966), p. 45.

[30] John A. Roeder and H. M. Hamlin, "New Designs in Vocational and Practical Arts Education: Part III--The Northeast," American Vocational Journal, 42:4:18, April, 1967.

[31] Panel of Consultants on Vocational Education, op. cit., p. xvii.

Only one in each 33 adults reported in the 1960 labor force of the Nation was enrolled in a federally-aided vocational or technical program in 1963-64.[33]

The Advisory Commission on Intergovernmental Relations has become concerned about the neglect of vocational education in the suburbs of the Great Cities. In its recommendations for State legislation to be enacted in 1967, the Commission states that "relative to their population, suburban areas have almost as great a need as their central city for new and specialized vocational education programs to train dropouts and near dropouts and retrain adults who are undereducated or whose education has become obsolete."[34]

The Committee on Economic Development has noted that "almost half of all independent school districts have less than 50 pupils" and that "even within the nation's standard metropolitan statistical areas some 600 of the 6,000 independent school districts had less than 50 pupils in 1962 and an equal number had between 50 and 150."[35] The difficulties in providing comprehensive programs of occupational education in these schools are obvious.

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[32] U. S. Office of Education, A Review of Activities in Federally Aided Programs of Vocational-Technical Education, Fiscal Year 1964 (Washington, D. C.: The Office, 1966), p. 45.

[33] *Ibid.*, p. 47.

[34] Advisory Commission on Intergovernmental Relations, 1967 Legislature Program of the Advisory Commission on Intergovernmental Relations (Washington, D. C.: The Commission, 1967), p. 528.

[35] Modernizing Local Government (New York: Committee on Economic Development, 1966), pp. 31-32.

Has Occupational Education Served Our Youth Well?

From a Bureau of the Census survey in 1964 of 17,000 households in 357 parts of the country, it was estimated that there were more than three million high school dropouts in the age group 16 to 21 or about 45 percent of the out-of-school youth under the age of 21.[36]

The President's Committee on Youth Employment reported in 1963 that unemployment among teenage Negro youth was double that of white youth. It predicted that, if the rate of unemployment of youth should persist, the number of unemployed youth in 1970 would be close to 1.5 million.[37] It has since fallen slightly.

The AFL-CIO American Federationist stated in 1963 that "large scale unemployment among the younger generation can have disastrous results" and that "even now. . . it has all the makings of 'social dynamite.'"[38]

Dr. Franklin Bobbitt warned in 1941 that "it is not improbable that a world organized to keep youths out of work until an unwholesomely emotionalized juvenility has set as their final characters is organized for its own self-destruction."[39]

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[36] Dorothy M. Knoell, Toward Educational Opportunity for All (Albany, New York: Office of the Executive Dean for Two-Year Colleges, 1966), pp. 51-52.

[37] President's Committee on Youth Employment, The Challenge of Jobless Youth (Washington, D. C.: U. S. Government Printing Office, 1963), p. 2.

[38] The AFL-CIO American Federationist, April, 1963.

Has the Smith-Hughes Act Been Unduly Influential in Determining the Occupational Education the Schools Provide?

Dr. Grant Venn believes that it has been. He has said: "The essentials of our present structure of vocational education are embodied in the Smith-Hughes Act. It seems odd that a study of a field closely related to a constantly and dramatically changing world of work must pay for much attention to a Federal statute more than forty-six years old. A study of the land-grant institutions of today, for example, would make only nostalgic reference to the Morrill Act of 1862."[40]

Is Occupational Education in the Public Schools Well-Related to That Conducted by Other Agencies?

Secretary of Defense McNamara has recently called his Department "the largest single educational complex the world has ever possessed," adding that the Armed Services provide enlisted men with training in some 1,500 skilled occupations."[41]

Dr. Grant Venn has called for "an appropriate division of labor between education and industry with education doing what it can do best

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[39] Franklin Bobbitt, The Curriculum of Modern Education (New York: McGraw-Hill Book Co., 1941), p. 395.

[40] Venn, *op. cit.*, p. 44.

[41] Steven M. Spencer, Saturday Evening Post, 40:98, February 25, 1967.

(educate more broadly for a life of work and citizenship) and industry doing what it can do best (train for the specific jobs)."[42]

Galbraith has urged care in relating education to industry: "One is led to inquire whether education remains education when it is chained too tightly to the wheel of the industrial system."[43]

The Congress has approved a budget of $283,611,455 for vocational and technical education in the public schools in 1967-68 and $358,487,000 for manpower development and training.[44] The latter is mainly in an out-of-school program.

Faucett has pointed out that employers, trade associations, and employee associations cannot be expected to provide vocational education that goes beyond the goals of their organizations and hence must be supplemented by public agencies.[45]

The President of the United States Chamber of Commerce stated in February, 1967, that "it has been predicted that in 1975 three-fourths of our labor force will be producing goods and services that have not yet been developed." He warned that "unless educators--and other private and public policy makers--demonstrate unusually keen foresight, our future economic and technological achievements could be tarnished by a large and growing reserve of inadequately or inappropriately prepared workers."[46]

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[42] Venn, op. cit., p. 33.

[43] John Kenneth Galbraith, The New Industrial State (Boston: Houghton Mifflin Co., 1967), p. 322.

[44] American Vocational Association, Memorandum, August, 1967.

[45] Claude W. Faucett, "Responsibilities of Nonpublic Agencies for Conducting Vocational Education," Vocational Education, Sixty-fourth Yearbook of the National Society for the Study of Education, Part I (Chicago: The University of Chicago Press, 1965), pp. 244-262.

Has There Been Resort To Short-Cuts in Occupational Education Which do not Take into Account the Long, Slow Process of Human Development or the Need for Adaptability?

Dr. Henry David of Columbia University believes that this is the case. He has written: "It may be immediately useful to an industry which dominates a community to influence the character of high school vocational education in order to help satisfy its labor needs. But this course may prove costly over the long run if major changes occur in technology, product, or plant location. Not so long ago, employers thought it desirable that the curricula of engineering schools should prescribe early specialization, so that their graduates would fit readily into the existing structure of jobs and tasks. Over the longer run, however, this policy exacted a high price in engineers who lacked the intellectual foundations and the flexibility to acquire new skills and undertake new functions.

"Inadequate understanding of the process of manpower development and slighting of the factor of time as a key variable in that process and in policy-making help to explain the predilection of so many Americans for 'crash programs' to solve the most complicated manpower--one would do better to say human-problems."[47]

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[46] M. A. Wright, "Education and Learning," quoted by Wilbur J. Cohen, The Annals of the American Academy of Political and Social Sciences, 373:79-101, September, 1967.

Has There Been too Little Recognition of Occupational Mobility and Migration in Providing Occupational Education?

The U. S. Department of Labor has stated that "each State's population includes large numbers of people born and raised elsewhere in the country" and that "more than 25 percent of the Nation's population lives in a different State than the State in which they were born." The State with the largest percentage of in-migrants has received almost 70 percent of its population from other States. A majority of the people in seven states were born in other states. In another nine states, a third or more of the population was born out-of-State.[48]

Many of the facts regarding mobility and migration as they relate to occupational education have been brought out in the report of a seminar conducted by the Center for Occupational Education, North Carolina State University, April, 1966.[49]

Dr. Walter W. Heller has said recently that "inequality plus mobility means that no community is immune to the effects of substandard education."[50] The effects of substandard occupational education would be among those most quickly detected.

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[47] Henry David, Manpower Policies for a Democratic Society (New York: Columbia University Press, 1965), pp. 106-107.

[48] U. S. Department of Labor, Selected Manpower Indicators for the States (Washington, D. C.: The Department, 1963), p. 19.

[49] H. G. Beard, (ed.), National Vocational-Technical Education Seminar on Occupational Mobility and Migration (Center Seminar and Conference Report No. 2, Raleigh, North Carolina: Center for Occupational Education, North Carolina State University, 1966.), 236 pp.

The implications of migration for occupational education become more clear when data for the labor force of the United States are viewed. Almost a third (32.4) percent of the labor force in 1960 was living in states other than those in which they were born. The mobility of skilled and professional workers is higher than the average for the entire labor force. Only 55.6 percent of the craftsmen, foremen, and kindred workers and only 56.1 percent of professional, technical, and kindred workers were living in 1960 in the states which they were born.[51]

The foregoing data do not take account of intrastate migration. It is well established that migration increases with increased years of schooling. Since the level of education is rising rapidly, increased migration is to be expected.

How Adequate is the Occupational Education Provided by the Smaller School Systems?

The Research Division of the National Education Association reported in 1963 the offerings in a sampling of the 9,064 high schools in the United States with enrollments under 300. Enrollments were under 100 in 2,121 schools and under 200 in 3,798 schools. There was no Distributive Education in 92.5 percent of the schools with enrollments under 300. More than 35 percent had no Home Economics. Thirty-seven percent had no offerings in Industrial Arts. Ninety-five percent lacked full-time counselors. Business Education was best represented in these schools; 99 percent taught typing.

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[50] Walter W. Heller, New Dimensions of Political Economy (Cambridge, Massachusetts: Harvard University Press, 1966), pp. 122-123.

[51] U. S. Census of Population: Occupational Characteristics (Washington, D. C.: Bureau of the Census, 1961), pp. 111-112.

Even in the fields in which these subjects were provided, the offerings were frequently limited. Some schools offered as little as one semester of Home Economics. Courses in office machinery, accountting, electrical work, and metal work were rare.

It is interesting that Business Education and Industrial Arts, which were conducted without federal aid at the time of the study, were the subjects most generally represented in the small high schools.

Ninety-eight percent of the small high schools studied were in communities with populations under 10,000 and 71 percent were in communities with populations under 2,500, yet only 50 percent provided courses in vocational agriculture.[52]

A study reported in 1966 by the George Peabody College for Teachers indicated that 59 percent of the high school students in 11 southern states had no opportunity to enroll in trade and industrial courses, 46 percent has no courses in agriculture available, and 38 percent lacked access to industrial arts.[53]

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[52] National Education Association, Research Division, Small High Schools (Washington, D. C.: The Association, 1963), 120 pp.

[53] George Peabody College for Teachers, Division of Surveys and Field Services, High Schools in the South (Nashville, Tennessee: The Division, 1966), p. 59.

What Contributions to Occupational Education Should be Expected From the Elementary Schools and the Junior and Senior High Schools?

The Public Education Association of New York City has recently recommended that the responsibility for providing vocational exploration should be transferred from the junior to the senior high schools and that students be advised to defer, when possible, specialized and advanced training in vocational skills until after high school. It has proposed work-exploratory programs and vocational foundation courses covering broad areas for the senior high school and the elimination of instruction in specific job skills. The Association urged that the schools maintain direct contact with every student until he is 21, employed full-time, or enrolled in another educational institution.[54]

What percentage of secondary school students should be enrolled in vocational courses? Dr. Grant Venn has reported that between 1950 and 1960 secondary school attendance in the United States increased some 50 percent while enrollments in the Federal vocational-technical program rose 10.7 percent.[55]

The National Association of Secondary School Principals has recently recommended that the numbers enrolled should be greatly increased, perhaps to 40 to 50 percent of the high school population.[56]

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[54] Committee on Education, Guidance, and Work, _Reorganizing Secondary Education in New York City_ (New York: Public Education Association, 1963), pp. 24-25.

[55] Venn, _op_. _cit_., p. 29.

[56] National Association of Secondary School Principals, _Educating for Work_ (Washington, D. C.: The Association, 1967), p. 110.

Dr. Harold C. Howe, II, believes that "it is imperative that secondary education train the majority of students to work for a living with the same care it devotes to the minority who go on to work for a baccalaureate or higher degree . . . . Secondary education is going to have to bring vocational training into the comprehensive high school, involve business and industry in truly effective curriculum development, and make all or a part of this curriculum available to every student."[57]

Dorothy L. Moore offers a radically different approach, saying that "geniune occupational objectives can be offered as a temporary measure in specific programs open only to persons who are irremediably alienated from the educational system and who need training in order to become employable, but such programs should not be treated as a regular part of the secondary program."[58]

Harbison and Myers have contrasted the occupational education needed in the secondary schools of "advanced countries," such as the United States, with that needed in less advanced countries. They have commented as follows about secondary education in advanced countries: "Continuous technological changes in the society require a broader secondary education with a solid base in science and mathematics, as well as in other liberal thoughts. A narrow vocational or technical secondary education will not assure the personal and occupational flexibility which an advanced country requires of its human resources."[59]

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[57] Harold Howe II, "The Neglected Majority, "Bulletin of the National Association of Secondary School Principals, 51:319:41-42, May, 1967.

[58] Dorothy L. Moore, A Preliminary Draft of a Study of Vocational Education in Hawaii Public Secondary and Vocational Schools (Part III, Honolulu, Hawaii: Legislative Reference Bureau, University of Hawaii, 1966), pp. 33-34.

Should Work Experience be Provided as a Part of Secondary Education?

Margaret Mead has said that "in thinking about an effective educational system, we should recognize that the adolescent's need and right to work is as great as (perhaps greater than) his immediate need and right to study."[60]

A survey by Nation's Schools of innovative practices in 7,237 regionally accredited secondary schools, reported in its issue of April, 1967, showed that 46.7 percent of these schools had some sort of work-study program, broad or limited.

Should Vocational High Schools be Eliminated?

Alonzo G. Moran is one among many who have recommended the elimination of separate vocational or technical high schools: "In view of the rapidly changing nature of the skills required by industry and the dearth of qualified teachers, I am of the opinion that industry is better equipped to do the needed vocational training than the average run-of-the-mill vocational high schools. Two-year technical institutes for high school graduates, closely connected with industry or labor organizations, appear to offer more promise of supplying skilled workers for industry. I predict that it will not be long before we are forced to recognize the speed with which the programs, facilities, and faculties of the technical high schools become obsolescent."[61]

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[59] Frederick Harbison and Charles A. Myers, Education, Manpower, and Economic Growth (New York: McGraw-Hill Book Co., 1964), p. 170.

[60] Margaret Mead, "A Redefinition of Education," NEA Journal, 48:7:17, October, 1959.

Should Vocational Education be Eliminated from the Secondary Schools or be Redirected?

Dorothy L. Moore has given her reasons for eliminating vocational education from the high schools of Hawaii "with all deliberate speed . . . There is a feeling of pessimism and failure at the secondary level due to the fact that the system attempts to accomplish too much. A refocusing on the central educative task, leaving specific occupational preparation to the post-high school years, would free the energies and resources of the high schools for their task. The evolving facts of economic life in the nation and in Hawaii emphasize the inadvisability of early vocational directing of children. First, the labor market for persons who have not yet reached adulthood is diminishing so that it becomes imperative to keep young people in school longer. This fact provides a golden opportunity for furthering the general education of all youth; the opportunity should not be missed. Secondly, the impact of technological change can be expected to raise increasingly the educational level demanded by the labor market, so that a solid secondary program of general education will increasingly be a prerequisite to success in occupational programs which are relevant to actual labor market demands."[62]

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[61] Alonzo G. Moran, "Employment and Public Policy," Public Policy and Manpower Resources (New York: Columbia University Press, 1964), p. 102.

[62] Moore, *op. cit.*, pp. 2-5.

Dr. Grant Venn takes an opposing view, holding that "high schools should establish vocational education programs which offer all youth leaving high school marketable skills or preparation for further occupational education." He recommends that "programs preparing youth to continue vocational and technical education after high school graduation should be of the same quality and availability as the college-preparatory curricula now available."[63]

How Important Are Public Area Schools in Providing Vocational-Technical Education?

Norman C. Harris believes that comprehensive area schools will be "the hub of the whole vocational system of tomorrow." He says that "the national trend is in this direction, and the reasons for it are clear. Most of the individual high schools cannot offer the variety of programs needed. More and more vocational-technical courses beyond the high school level are needed. The public favors later initial employment than at high school graduation. Employers favor the older employee and the one who has taken his vocational training in a post-secondary institution. The post-secondary institution will have better facilities and a more specialized staff in many fields than the high schools can have. For these reasons, more and more youth, when post-secondary education is available to them, are likely to postpone their vocational training until after high school graduation. Adults tend to favor the post-secondary institution over the high school for their training and retraining for the additional reasons that the teaching methods and the professional climate may be more to their liking."[64]

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[63] Venn, op. cit., pp. 166-167.

Only limited opportunities for vocational-technical education are available in the junior colleges of many states. In 1965-66, ten states enrolled 143,405 of the 170,265 enrolled in federally-aided programs in these institutions. Almost 37 percent of these were in California.[65] There were additional enrollments in vocational-technical courses in area schools in the 15 to 20 states which have systems of vocational schools separate from the junior and community colleges.

Are Too Many High School Graduates Going to College Rather Than to Vocational and Technical Schools?

The U. S. Department of Labor has reported that in October, 1962, half of the 1,850,000 high school graduates in 1962 were in college but only 8 percent were in technical, secretarial, and other special schools.[66]

Have We Used Too Many of Our Resources in Providing Vocational Education for Youth Under 16 Years of Age?

Dr. David Snedden wrote in 1938: "Because of certain fundamental weaknesses and sentimentalities in our theories of social needs for vocational education, we have spent altogether too much time and effort in trying to provide opportunities for boys and girls between fourteen and sixteen years of age, thus ignoring a variety of tendencies in American economic and psychological life all pointing to the desirability of commencing vocational training only when greater maturity has been attained . . . .

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[64] Norman C. Harris, Education and Training for the World of Work (Kalamazoo, Michigan: The W. E. Upjohn Institute for Employment Research, 1963), p. 3.

[65] U. S. House of Representatives, General Subcommittee on Education, Hearings on the Vocational Education Amendments of 1966, 2 vols., (Washington, D. C.: U. S. Government Printing Office, 1967), pp. 667-668.

[66] U. S. Department of Labor, Bureau of Labor Statistics, Special Labor Force Report, No. 32 (Washington, D. C.: U. S. Government Printing Office, 1963), pp. 1-2.

"We have also failed to differentiate and study the numerous vocations which can normally be entered only after prospective workers have attained at least the full maturity of manhood, if not the responsible character of early middle life . . . .

"We have failed to make clear to the public and even to educational administrators that for the majority of vocations it would be necessary to provide no more than a few--from ten to a score--of vocational schools for a state, even if all of the recruits to the vocation were expected to take full-time vocational training in advance of entry upon productive work . . . .

"When our leaders in vocational education shall have seen through the complexities of the social economy and the social psychology of their subject, they will find that, taking America as a whole, there is far greater need of full-time concentrated vocational schools for persons from twenty to thirty years of age than for those from fifteen to twenty."[67]

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[67] David Snedden, "The Vocational-Education Movement: A Critical Inventory of Policies," Objectives and Problems of Vocational Education, Edwin A. Lee, editor (New York: McGraw-Hill Book Co., 1938), pp. 367-368, 375.

Is Sufficient Attention Being Given to the Occupational Education of Adults?

Following a comprehensive national study in which he discovered that "about one-third of adult education studies are in the vocational field," Johnstone has made these comments regarding the future development of adult education.

"America is likely to experience an adult education explosion within the next decade or so. The typical participant today is young, urban, and well-educated, and this is exactly the type of person who will be around in greatly increased numbers about ten years from now. Just as in the fifties and sixties the regular school system has had to tool up rapidly to accommodate the greatly increased numbers of young people in the population, so too in the seventies the field of adult education will experience increased demands as this population cohort moves into the social and demographic categories where greatest use is made of adult education. Moreover, because formal education has such a strong impact upon participation rates, the likelihood of increased numbers of older participants is also quite strong. More fifty, sixty, and seventy-year-olds will engage in educational pursuits twenty years from now because at that time the educational attainment of the people in these age brackets will, on the average, be considerably higher than it is today."[68]

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[68] John W. C. Johnstone, Volunteers for Learning (Chicago: National Opinion Research Center, University of Chicago, 1963), pp.132, 137.

Dr. Grant Venn has pointed out that our present educational system "is not well geared to this broader idea of continuous learning." Instead, he says, "it emphasizes the concept of full-time education, over a set period of time, with a prescribed program of courses, ending at a set termination data. It is based on the outdated concept that most people can be educated during the period of youth. By contrast, a good vocational or technical program will have as many (or more) students doing extension work as are doing preparatory work; this goal has been achieved in many of the existing programs."[69]

Mr. Joe L. Rempson in discussing means of using the schools to improve the situations in depressed metropolitan areas has urged job training for adults: "We can hardly expect the community to meet its responsibilities to children when, day to day, its energies are exhausted by the problems--objective and psychological--attending unemployment and underemployment . . . . I do not think that quality education for the minority group child can be achieved without making the community more effective in carrying out its responsibilities to the child. And what better way to do this than by raising the community's educational level and, integral to this, its occupational level as well?"[70]

The U. S. Department of Labor found in a study reported in 1954 that more than half of the members of the labor force of the country 22 to 64 years of age in 1954 who had spent less than three years in

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[69] Venn, op. cit., p. 151.

[70] Joe L. Rempson, "Community Control of Local School Boards," Teachers College Record, 68:7:571-578, April, 1967.

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college claimed to have received no formal job training. Seven out of ten reported no formal training for their current jobs.[71]

Can We Provide Job and Career Opportunities Which Utilize Fully the Talents and Capacities of all Americans? What Should be the Contribution of Public Occupational Education to This End?

Support is coming from several quarters for regular inventories of the social situation in the United States to be added to those of the economic situation. A bill is currently before Congress which would provide these inventories. In a communication to President Johnson, Dr. William Graham and Dr. Daniel Bell have said: "No society in history, has, as yet, made a coherent and unified effort to assess those elements in society which facilitate and which bar each individual from realizing to the fullest extent possible his talents and abilities, in order to allow him to find a job, or establish a career commensurate with his talents, to live a full and healthy life equal to his biological potential, to establish the conditions for an adequate standard of living which allows him to live a civilized fashion, and which provides a physical and social environment which enhances his sense of life. We believe that these aims are implicit in the American purpose. We believe that means of realizing them are possible.[72]

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[71] Alice M. Rivlin, "Critical Issues in the Development of Vocational Education," Unemployment in a Prosperous Economy, William G. Bowen and Frederick H. Harbison, editors (Princeton, New Jersey: Princeton University, 1965), p. 153.

[72] Quoted by M. Gross and Michael Springer, "A New Orientation in American Government," Annals of American Academy of Political and Social Sciences, 371:11, May, 1967.

Former Governor Terry Sanford of North Carolina has recently stated that "the major use of government, throughout American history, has been to expand and develop opportunity."[73] Occupational education is being mentioned more and more frequently as a major means to this end.

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[73] Terry Sanford, Storm Over the States (New York: McGraw-Hill Book Co., 1967), p. 11.

SECTION VII

EVALUATIVE CRITERIA AND PROCEDURES IN USE: THEIR LIMITATIONS

"It is a great misfortune that the best trained evaluators have been looking at education with a microscope rather than a panoramic view finder."[74]

Occupational education is likely to be no better than the evaluations applied to it. If evaluations are limited in scope, they may not deal with many of the factors which contribute to occupational choice, competency, and advancement. If they are not rigorous, effective programs cannot be expected. If they are unacceptable to those who conduct occupational education, their clientele, and the public, they are likely to be ignored.

Regular, comprehensive, organized, systematic, and rigorous evaluations have usually been lacking in the conduct of occupational education.

Evaluations have ordinarily applied to certain limited phases of occupational education such as vocational education in agriculture or homemaking.

Usually only the federally-aided program has been evaluated. The contributions of the basic subjects in the elementary schools and high schools, the practical arts, and counseling have been overlooked.

Typically the evaluations have been of programs, teachers, students and former students, and facilities. There has been little attention to public policies and public attitudes responsible for the conditions discovered or to the processes by which public policies for occupational education are derived.

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[74] R. E. Stake, "The Countenance of Educational Evaluation," Teachers College Record, 68:536, April, 1967.

Most of the evaluations have dealt with the vocational education of youth. Since adults greatly outnumber youth and occupational education may be needed at any time in life, more attention to the evaluation of adult occupational education is needed.

Special criteria and procedures have commonly been used in evaluating each phase of occupational education. There is need for evaluations which cross all fields and apply some common criteria while allowing for justifiable differences.

Each public agency for occupational education has usually been evaluated separately: local schools, area schools, colleges, adult programs. The role of each in a comprehensive and integrated system of public occupational education needs to be studied.

There have been evaluations of the accomplishments and the progress of those who received vocational and technical education but there has been too little attention to the needs of the unserved, who greatly outnumber those served. There has been conspicuous neglect of evaluation of the services to Negroes and to others who live in slums or impoverished rural areas. Usually the occupational education provided for these groups is primitive and out-dated. Opportunities to prepare for the newer and better-paying occupations are only rarely available to these groups. The dominantly Negro colleges have not been financed or staffed to assist as they could in preparing professional personnel in occupational education for the dominantly Negro schools. Area schools are seldom as accessible or as much used by Negroes as they are by whites.

The conventional wisdom of the profession asserts that evaluation should be in terms of objectives, but this assertion stimulates many questions: Whose objectives? What kinds of objectives? Why one set of objectives instead of another?

Some say that the objectives used should be those a school system has set for itself. Certainly this kind of evaluation should occur, but it may be even more important to evaluate the objectives and the means by which they were chosen. A citizen evaluation is likely to ask: What should the schools be accomplishing? It will not, and should not, be content with determining whether the limited goals in occupational education characteristic of most school systems are being reached. Citizens will want to know what is being done with the resources they are supplying; it is essential that they learn what could be done with additional resources which only they can provide.

Although occupational education conducted privately by business, industry, and vocational-technical schools is a much larger enterprise than publicly conducted occupational education, costing $15 to $20 billion annually, evaluations have seldom dealt with the relationships of public programs to private efforts, which must be understood in arriving at the complementary and residual functions of the schools.

Evaluations of occupational education are frequently over-simplified, taking into account only a few of the purposes it may serve. Dr. John Kenneth Galbraith has recently commented on a situation which is paralleled in occupational education: "St. Peter is assumed to ask applicants only what they have done to increase the GNP. . . . To many it will always seem better to have measurable progress toward the wrong goals than unmeasurable and hence uncertain progress toward the right ones."[75]

Citizen evaluations and evaluations by the educational profession have often proceeded independently of each other, using different criteria and procedures, and without communication of the findings from one group to the other.

The Cost-Benefits Approach

The cost-benefits approach to evaluation, introduced in the federal government by Secretary McNamara and now used extensively by it, has a special appeal to tax-conscious citizens. There are so many difficulties in its use in education that it is not suggested as a practical tool for use in citizen evaluations in the foreseeable future. It is likely that cost-benefit analyses of occupational education by competent investigators will slowly yield data of value in these evaluations.

Schultz,[76] Lenison,[77] and others have shown that increased earning power is associated with additional years of schooling of whatever nature. The studies by Schultz show the highest percentage of return on investment, measured by earnings, is from elementary education, which has usually been assumed to be unrelated to vocational education.

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[75] John Kenneth Galbraith, The New Industrial State (Boston: Houghton Mifflin Co., 1967), p. 408.

[76] Theodore M. Schultz, The Economic Value of Education (New York: Columbia University Press, 1963), 92 pp.

[77] Edward F. Denison, The Sources of Economic Growth in the United States and the Alternatives Before Us (New York: Committee on Economic Development, 1962), 297 pp.

The cost-benefit studies thus far completed have provided little analysis. Vocational and general education have been lumped together. Distinctions have not been made among good, bad, and indifferent types of education. Years of schooling, of any kind, have been related to income.

Evaluators should remember that these studies have dealt only with economic returns from education. The non-economic returns, even from occupational education, may be greater than the economic ones. The whole educational system cannot be distorted in an effort to increase earning power.

One of the difficulties in this kind of evaluation is that the benefits, or handicaps, resulting from occupational education are spread over a lifetime. It is hazardous to base conclusions on short-range studies, but citizens must make decisions now on the basis of the best evidence they can secure.

Interest in the cost-benefits approach is spreading to the states and it is to be expected that state groups concerned with the evaluation of occupational education will be obliged to weigh the advantages and disadvantages of this approach.[78]

Citizens have always related costs and benefits in deciding their expenditures for education. Their estimates of both have been crude. It is important to note, however, that they have not reckoned benefits entirely in dollar returns. In fact, they have frequently expected no monetary returns from certain kinds of education. Their expectation of financial returns from vocational education is greater than those expected from "general education" but even in certain forms of vocational education other values rate high. Espenschied in a study of the parents of high school boys enrolled in vocational agriculture in 20 Illinois communities found strong approval of the subject but the vocational outcomes from it were rarely mentioned. Instead, its beneficial effects upon the rounded development of farm boys was stressed.[79]

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[78] Elaine Exton, "State Legislatures Urged to Install Planning-Programming Budgeting System," American School Board Journal, 154:2: 13-16, February, 1967.

The cost-benefits approach is more satisfactorily used in studies of specialized vocational and technical education than in studies of occupational education as it is defined in this publication. A study by Carroll of the returns from technical education at the Gastonia, North Carolina, Technical Institute illustrates the possibilities.[80] "Occupational education" is regarded as a function of our entire system of public education to which every part of the system contributes. Its costs cannot be determined accurately. It is impossible to assign to any part of the system its responsibility for the benefits derived.

The cost use thus far of the cost-benefits approach in evaluating occupational education has been in the vocational rehabilitation program. Platt has reported that 56,000 handicapped persons earned $15 million annually before rehabilitation and $102 million per year after rehabilitation.

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[79] Roland F. Espenschied, "Major Findings of a Study of Parental Attitudes Toward Vocational Agriculture" (unpublished Doctor's dissertation, University of Illinois, Urbana, Illinois, 1961), 93 pp.

[80] Adger B. Carroll, "Value of Human Capital Created by Investments in Technical Education" (unpublished Doctor's dissertation, North Carolina State University at Raleigh, 1966), 90 pp.

He has estimated that the additional federal income taxes paid by these persons in one year would more than cover the $8 million required for their training.[81] The annual reports regarding the rehabilitation program, issued by the U. S. Department of Health, Education, and Welfare, provide steadily accummulating data regarding the earnings of handicapped persons before and after retraining.

National Evaluation

There has been a recent dispute regarding a "national assessment" of education now underway, directed by a committee whose chairman is Dr. Ralph W. Tyler. Dr. Tyler[82] and Dr. Harold C. Hand[83] have focused the argument in articles in the Phi Delta Kappan.

There are similar questions regarding the national assessments of vocational education which the Congress has provided. If these national reviews are conducted wisely and if they are supplemented by independently conducted local, state, and regional evaluations, they may serve an important purpose. Undue reliance upon national evaluations, unchecked by other evaluations, could grossly distort and damage the whole situation. The good sense of the American public and the educational profession is required in interpreting national evaluations.

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[81] William J. Platt, "Education-Rich Problems and Poor Markets," Management Science, 8:4:411, July, 1962.

[82] Ralph W. Tyler, "Assessing the Progress of Education," Phi Delta Kappan, 47:13-16, September, 1965.

[83] Harold C. Hand, "National Assessment Viewed as the Camel's Nose," Phi Delta Kappan, 47:8-12, September, 1965.

Special Problems in Evaluating "Vocational Education" in the High Schools

There are sharp differences of opinion regarding the value, as vocational education, of "vocational" subjects taught with federal aid in the high schools.

Labor economists often point to the declining number of farmers in contrast with the large and increasing enrollments in vocational agriculture. Some contend that home economics should be a part of the general education of all girls and should be financed with funds for general education. They believe that federal funds for home economics should be reserved for training for employment outside the home. Others object to specialized trade and industrial courses in the high schools on the grounds that they detract from general education and that students completing them are too young to enter the labor market or must undergo long apprenticeships regardless of their high school preparation.

Prior to 1963, when federal funds first became available for it, business education was provided in almost every high school in the United States. Industrial arts is still taught without Federal aid and the number of teachers of the subject has grown to more than 40,000.

Citizen evaluators may well ask whether federal funds for vocational education are being spent honestly and in keeping with the provisions of the federal acts, which have always specified that they are to be used to prepare for or upgrade in specific occupations or clusters of related occupations. At the same time, they should look into the provisions of state and local funds to finance needed high school programs that have proved their worth but ought not be financed with funds appropriated for vocational education. If federal funds are required for these programs they would be provided more appropriately under the Elementary and Secondary Acts than under the vocational education acts.

They should also ask why industrial arts is the only one of the practical arts provided in most school systems. Why should there not be parallel programs in agriculture, business, home economics, and other fields?

The role of the high school in vocational education must be rethought with consideration of the rapid development of opportunities to receive it after high school and the rapidly rising percentage of high school students who take advantage of these opportunities. Should the high schools prepare for participation in vocational-technical programs in the area schools and the schools for adults with the same zeal that now goes into college preparation?

A major factor in determining the role of the high schools in vocational education is the age at which employment can be secured in occupations of various types. Many cannot be entered on high school graduation. Many others cannot be entered until one approaches middle age. A basic principle of vocational education is that specialized education for a job should immediately precede entrance upon the job and accompany employment on the job. This does not mean abandonment of occupational education in the high school; it implies its reconstruction with less emphasis for many students on specific training for specific jobs.

The early school-leavers require special attention. To the extent possible, these should be prepared for entry jobs, but the greater emphasis should be upon keeping in touch with them after they leave school, providing education on the job, and encouraging return to full-time schooling in the area schools or elsewhere to prepare for better jobs. The assumption is false that early school-leavers are without ability and can never be expected to accept more schooling.

Balancing Vocational Offerings

There have been justifiable complaints in many sections of the country that agriculture and homemaking have been receiving most of the funds for vocational education and that industrial education, business education, distributive education, and education for the health occupations have been neglected. Too often, the complainers jump to the conclusion that a desirable balance would be attained by cutting expenditures for agriculture and homemaking and transferring funds to other fields.

This conclusion seems to imply that we are already doing too much in agriculture and homemaking although anyone familiar with these fields knows that we are doing far too little. It is senseless to cut back the two programs in which the greatest strength has been shown. The obvious answer is to strengthen the neglected programs.

The nation is dependent upon agriculture for food, clothing, and shelter. The number of farmers has been declining. Those who remain require special training as no previous generation of farmers has required it. Because modern farming is dynamic, farmers must be retrained throughout their active careers.

Education in agriculture is not merely education in farming. Workers outside farming who require some type of agricultural education outnumber farmers at least 2:1 and possibly 3:1. These workers in related fields are as vital as farmers to modern agriculture.

It would be just as short-sighted to cut back our effort in homemaking education at a time when there is more concern than ever before about the future of the American home. Homemakers are certainly not less important than women who work outside the home, whose vocational education is now receiving special emphasis.

It is gratifying that the citizens of America are not buying the reasoning of the detractors of agricultural and home economics education. Both fields are expanding rather than declining. Both still need more funds and more personnel.

SECTION VIII

LAY AND PROFESSIONAL RELATIONSHIPS IN EVALUATION

Many lay citizens have become wary of the "educational establishment." Some have transposed to education General Douglas MacArthur's statement that "war is too important to leave to the military." Counsel given by President Dwight D. Eisenhower in his farewell address might similarly be applied to public education: "We must guard against the acquisition of unwarranted influences, whether sought or unsought, by the military-industrial complex. The potential for the disastrous rise of misplaced power exists and will persist. We must never let the might of this combination endanger our liberties or democratic processes. Only an alert and knowledgeable citizenry can compel the proper meshing of the huge industrial and military machine of defense with our peaceful methods and goals, so that security and liberty may prosper together." Continuing, he warned that "public policy could itself become the captive of a scientific-technological elite."[84]

In the "overview" of this publication there was a brief statement of the relationships which should exist between lay policy bodies and the schools' professional staffs. The broadest generalization is that policy bodies representing the public are responsible for enacting policy and seeing that it is executed; professional educators are responsible for advising about policy and executing policy. The application of this principle in specific cases if often difficult.

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[84] Louis Filer, The President Speaks (New York: G. P. Putnam and Sons, 1964), p. 368.

Some of the difficulties in applying it in the evaluation of occupational education are these:

1. Many governing boards have no adequate statements of official policy regarding evaluation, have not separated their responsibilities for evaluation from those of their professional staffs, and have made no arrangements for evaluations or reports of evaluations.
2. Professional staffs are not consulted about the evaluations the boards are making or about evaluation policies.
3. Funds and personnel for evaluation are not provided by the governing boards. When evaluations are conducted by lay groups, there must be dependence upon help provided by the professional staffs of the schools evaluated. School records of several types are needed. Most of all, the good will of the professional staff is required if there is to be willingness on its part to make the changes citizen evaluations suggest.

Members of professional staffs should see the advantages to them of well conducted citizen evaluations. They offer opportunity to put before a selected body of laymen the facts regarding the schools' accomplishments and to inform the public regarding the difficulties under which they are laboring.

Professional staffs are better able to assist with citizen evaluations if they have continuously been making their own evaluations. They may find that the criteria by which they have been evaluating are not consistent with those lay citizens apply. Citizen evaluations offer an opportunity to arrive at consensus between staff and community.

The necessity for parental cooperation in providing education for children and youth is conceded. It is especially important in occupational education. When parents are included in evaluations, the respective roles of home and school can be defined. Parental assistance in developing responsible attitudes toward work and desirable work habits can be secured. The dangers in neglecting these until characters are formed can be brought out. Misguidance about occupational choice and training on the part of the parents and the school can to some extent be reduced.

An apparently affluent society. whose members live largely in metropolitan areas, seems to be failing more commonly than earlier societies have to develop in youth the attitudes toward work and the work habits required. Conditions have changed markedly and new ways of inducting youth into productive employment must be found. The schools, homes, business, and industry must share responsibility for providing these means. Induction into useful work begins soon after birth; it cannot be left to the later years of high school or to post-high-school education.

Teachers and administrators have often set up lay advisory committees which become involved in evaluation. Their advice is not always confined to matters within the jurisdiction of educators; sometimes they assume functions that are properly those of the governing boards. The safest arrangement is for a board to authorize all citizens consulting committees and define their functions and relationships. The most important function of these committees is to aid the board in policy development but they may also be very useful to teachers and administrators in performing their special functions.

Teachers and administrators should not be misled by a "professionalism" which ignores the facts of life and assumes that educators should be allowed to judge their own performances. They should be mindful of the recent experience of the American Medical Association in combatting a public demand for Medicare. Certainly, educators are better able than laymen to judge some aspects of occupational education. Certainly, laymen need the help of educators in making the decisions for which they are responsible. But no one should forget that citizens have the last word in the evaluation of public education or that their evaluations determine everything the profession is allowed to do.

SECTION IX

ATTITUDES INHIBITING ADEQUATE CITIZEN EVALUATIONS

There are attitudes on the part of lay citizens and professional educators which have kept formal arrangements for citizen evaluation from developing.

Lay citizens frequently believe that they are incapable of judging a school system or its arrangements for occupational education. Many professional educators have encouraged this attitude. An unreal professionalism assumes that educators should be allowed to evaluate their own work.

Evaluations of any kind are typically feared by teachers and administrators. Apart from the threat to one's ego, there is real danger that the evaluations will be superficial and unfair. An individual may be held responsible for conditions not under his control. There may be need for a scapegoat and none is more likely than a teacher or an administrator.

Few teachers and administrators have worked in situations in which sensible arrangements for citizen evaluation are used. They are more used to the carping criticisms of discontented individual citizens and may assume that these criticisms are representative of the evaluations any group of citizens would make. The few who have shared in well conceived citizen evaluations are surprised by the friendly and cooperative attitudes of the evaluators, their sincere interest in the schools, and their desire to improve them.

A sound evaluation places responsibility where it belongs. The ultimate responsibility is, of course, the citizens'. Responsibilities are shared; no individual professional person can be held exclusively responsible for the conditions which exist.

Dr. R. E. Stake has recently said that "educators fail to perceive what formal evaluations could do for them. They should be imploring measurement specialists to develop a methodology which reflects the fullness, the complexity, and the importance of their program."[85]

Boards frequently base their evaluations upon the reports of accrediting associations, information supplied by school executives, their own observations, and the rumors they hear. Any one of these or all of them together may be very misleading, but most boards seem to be satisfied with the present arrangements.

Some board members and some legislators assume that since they were elected to represent the public, they are expected to exercise their own judgments in doing so. They construe this to mean that they are entitled to evaluate education in their own ways, regardless of the information or the lack of information they have as a basis for evaluation.

The accrediting associations have given little attention to the evaluation of occupational education but are beginning to see a need for better means of judging it. Many school administrators have failed to provide their boards with information useful in evaluation. Some boards have spent hundreds of thousands of dollars for surveys by outside evaluators, whose findings have been rejected by the local public, which was not involved in arriving at them.

Recently the evaluation process has been complicated by the provision of massive amounts of federal aid with built-in provisions for evaluation by professional educators but no requirement of citizen involvement. The local or the state public may be unaware of the conclusions reached and may proceed independently in arriving at its own evaluations.

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[85] R. E. Stake, "The Countenance of Educational Evaluation," Teachers College Record, 68:524, April, 1967.

Because evaluation involves the application of values and it is frequently assumed that there is no agreement about values, refuge has been sought in "objective measures." Subjectivity has not been eliminated, however, since values determine the measures to be applied and condition the interpretation of findings. The chief outcome of alleged "objectivity" is that trivia are emphasized and important realities are ignored.

It is said that we do not know how to evaluate, yet we know or strongly suspect the principal causes of superior and inferior programs of occupational education. Much that is important in evaluations can "be seen with the naked eye." We can start with what we know and gradually improve the process.

SECTION X

AMERICAN VALUES AND IDEALS AS BASES FOR CITIZEN EVALUATION

Mr. Francis Keppel, recently U. S. Commissioner of Education, has said: "the basis of education is a general consciousness of the values which govern human life."[86]

Dr. William B. Williamson has added his testimony that "it is certainly possible for common values to be determined, articulated, and taught."[87]

The question confronting citizen evaluators is: What values and whose values are to be considered? It is not safe to tie to values which have only local priority or to values that have received only recent emphasis. There are values which are a part of the American heritage which are still widely accepted by Americans. Taken together these have sometimes been called "the American dream."

Dr. John W. Gardner, Secretary of Health, Education, and Welfare, has recently urged renewed recognition of "the American commitment . . . in the early years of the Republic our people had wonderfully high hopes for the new nation. It was to be a model for all mankind, a city set on a hill, a haven of liberty and reason and justice...Today the first duty of responsible citizens is to band together rather than tear apart. The fissures in our society are already dangerously deep. We need greater emphasis on the values that hold us together."[88]

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[86] Francis Keppel, The Necessary Revolution in American Education (New York: Harper and Row, 1966), 201 pp.

[87] William B. Williamson, "Moral-Spiritual Values," Teachers College Record, 68:7:565, April, 1967.

Mr. Robert J. Blakely has recently quoted Whitehead's comment that "human life is driven forward by dim apprehensions of notions too general for existing language." Blakely continued: "The theme of the 'American dream' is such a notion; that each human individual is a person of infinite worth. This notion has given coherence to our national society: When it has been denied, we have fought one another; when it has been questioned, we have faltered; when it has been affirmed, we have moved forward. It is the only notion both spacious and flexible enough to be shared by all people as the human core for a common world society. It is time for us to affirm it again - for our own people and for other peoples."[89]

After a study of the value patterns of four democratic countries, Lipset has concluded that the two most similar democracies, the United States and Great Britain, "being largely urbanized, heavily industrialized, and politically stabilized, are actually integrated around different sets of values."[90]

What ingredients of the American dream have implications for the evaluation of occupational education? Some are stated in official documents. Others are in our mores. Any list of them will reflect the bias of the compiler. Here is one list.

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[88] Address presented at the University of North Carolina at Chapel Hill, October 12, 1967.

[89] Robert J. Blakely, "The Thistle," Adult Leadership, 14:10:322, April, 1966.

[90] Seymour Martin Lipset, "The Value Patterns of Democracy: A Case Study in Comparative Analysis," American Sociological Review, 28:515-531, August, 1963.

A. The worth and the dignity of each individual are to be respected. Out of this basic belief have come a series of beliefs:

   1. Government rests on the consent of the governed.
   2. Governmental agencies are to treat all individuals and groups with equal fairness regardless of race, sex, age, social and economic status, or any other consideration.
   3. Individuals are entitled, and desire to be different.
   4. Individual freedom, responsibly exercised, is to be encouraged, subject only to the discipline of just laws.
   5. Freedom of speech, freedom of the press, and the right to assemble peaceably and petition for the redress of grievances are not to be denied.
   6. Individuals are free to live in any part of the country and to engage in any legitimate type of employment.
   7. The powers of government are limited to those believed necessary for the welfare of individuals.
   8. Local governments, close to the people, are expected to do for themselves all that they can do well. They are to be aided by a state in doing what they cannot or will not do well alone. The federal government is to aid in doing what the states cannot or will not do well alone.

B. The privileges of individuals are balanced by concepts of individual responsibility to their governments.

1. All citizens are expected to participate in the development and enforcement of public policy as their abilities and opportunities permit.
2. Public policy is to be developed through broad participation by citizens, enacted by elected representatives, and executed (usually)by public employees.
3. Citizens are to consider public issues rationally with full use of relevant facts.
4. The information required for the development and evaluation of public policy is to be supplied to the citizens.
5. Able-bodied Americans are expected to work, to provide for themselves and their dependents and to support public instructions through the payment of taxes.
6. There is to be much dependence upon private enterprise. Nothing is to be done publicly that can be done as well privately.
7. Public agencies are to be kept free from entangling alliances with private agencies.

Implications for the Evaluation of Public Occupational Education

The implications for public occupational education of the American dream are legion. These are a few of the more obvious ones:

1. It should be provided appropriately and without

1. discrimination for all: children, youth, and adults; men and women; members of all racial and nationality groups and all social and economic classes; farm and city dwellers.
2. Its primary concern should be with individuals and their best total development. People are not to be regarded as "human resources"; people have resources. Occupational education in the schools does not exist merely to provide industry with manpower.
3. It should be an important part of education for American citizenship, not something separate.
4. Individual differences should be respected. There are more than 25,000 specialized occupations offering opportunities for individualized talents. Students should not be forced into a few molds by a limited choice of vocational offerings. Guidance and counseling should make them aware of their vast and varied opportunities.
5. There should be recognition of the facts of migration and concern about those who will migrate as well as those who will remain in the communities in which they secure their basic schooling. Federal and state funds provide a large part of the costs of public occupational education; they should not be used for narrowly local purposes.
6. Policy for public occupational education should be made in the American pattern with adequate citizen participation,

adequate information supplied to citizens, and a proper division of lay and professional responsibilities.

7. American principles should be followed in assigning responsibilities for occupational education to the local, state, and national governments. Local school units should be kept strong and well-financed, the states should do their share, and the federal government should assist in doing what the states cannot or will not do well alone. The resources of all three types of government are needed in providing adequate occupational education.
8. Occupational education should be balanced with education for total personal development.
9. There should be recognition of privately conducted occupational education by those responsible for public programs and agreement regarding the respective roles of public and private agencies.
10. There must be regular, systematic, and thorough evaluations of publicly conducted occupational education conducted or sponsored by the citizenry.

Issues in Deciding the Public and Private Roles in Occupational Education

One of the most serious issues confronting citizen evaluators is decision regarding the roles in occupational education of the public and private sectors.

Traditionally, occupational education was left to families, industries, businesses, and charitable institutions. The colleges, particularly after the passage of the Land-Grant College Act of 1862, assumed increasing responsibilities in educating for the professions. It was not until the present century, however, that the public schools began to provide specialized education for nonprofessional occupations.

Expenditures for vocational and technical education by the private sector have increased much more rapidly than those for the public sector, especially in recent years. There are indications that resistance to increasing private expenditures has been increasing, with attendant insistence that the public schools prepare their students better for employment. There have been objections to providing vocational and technical education privately and allegations that education thus provided is tailored to the employers' needs while neglecting general education. Perhaps the Director of Training of the Caterpiller Tractor Company has best expressed the consensus of employers in saying that his company wants to teach its special know-how and to leave everything else to the schools and colleges.

It is already evident that the larger corporations, particularly if a number are concentrated in an area, are able to get from the public schools much of the training they want for their employees.

Decisions about the allocation of functions to the schools can only be reached satisfactorily when there is consultation between representatives of the school and representatives of the community. Community representation should not be limited to representatives of big business. Smaller businesses, parents of youth to be trained, and the youth themselves need to participate. The interests of individuals cannot be sacrificed to corporate interests.

It seems likely that, when agreement is reached, the functions of the schools will be defined quite differently than they are commonly defined today. Studies already made indicate the high rating business and industry give to basic and general education, the ability to work with others, and work habits. Preparation for work will be seen as beginning in the nursery school, continuing through the entire period of full-time education, and extending into adulthood with the schools contributing far more than they have been contributing.

The Congress of the United States has shown a disposition to get vocational-technical education accomplished outside the schools if the schools cannot provide it satisfactorily. It has given the schools increased funds, though not nearly enough, in what may be a final effort to use them. At the same time, it has provided federal funds for public agencies other than the schools and has allowed the use of federal funds by private agencies under contracts with the public schools.

A change in congressional thinking from an emphasis on specialized vocational-technical education with which it has been preoccupied for more than fifty years to the concept of occupational education emphasized in this publication could result in new financial arrangements. The elementary and secondary schools could be encouraged to do what they can do well, leaving much they have tried unsuccessfully to do to the area schools and to programs for adults.

Organizing Public Occupational Education to Implement American Values and Ideals

We cannot do what American values and ideals imply as long as public occupational education remains organized as it is. The respective functions of the various units of public education must be spelled out and related to each other. Following is a statement of the functions the various units in the American system of public education might perform.

The elementary schools might be charged with developing in children an awareness of the importance of useful work in their own lives and in society. They could learn something about the economy which supports our society, become familiar with unfamiliar work opportunities, and come to realize the bearing of education upon the work opportunities they will have.

The junior high schools could accept an important role in occupational guidance and counseling. The practical arts could have an important place in them, providing information and skills useful to all, regardless of future occupations. The parents of junior high school students could be aiding in providing sound influences in their children's decisions about occupations and about preparation leading to the occupations of their choice.

Senior high school students are in need of further occupational and educational guidance. A steadily increasing percentage of them will continue their education after high school in four-year colleges, area schools, and adult programs. Their high school education could be planned with their further education in mind, whatever its nature. Those who are to drop out of school at or before graduation could be given preparation for getting and holding their first jobs and encouraged to continue their education while employed by attending area schools or adult classes.

Work experience under school auspices could be provided under school supervision for junior and senior high school students who are not securing it otherwise.

Occupational offerings in the senior high schools will have to be adjusted to school size. High schools are becoming larger, so that an increasing number of them will be able to offer somewhat specialized programs in the principal vocational fields in grades 11 and 12. These can be geared to employment or to programs in the area schools and the colleges. Some Florida schools have already illustrated the possibilities in articulating high school and junior college programs.

Obviously, the programs in the elementary schools, junior high schools, senior high schools, area schools, and colleges should not be conducted in isolation from each other, as they frequently are.

Many local school systems, convinced that they cannot do what is implied by the federally-aided program of vocational-technical education and still provide good basic and general education, have largely abandoned vocational education. These include a large part of the schools in the suburbs and most of the small rural schools. There are other schools which could do more in vocational education than they are doing but have resisted the federally-aided program.

The local schools, public and private, remain the "common schools," which all attend. It is unsafe to rear a new generation that has been led by its schools to believe that preparation for life does not include preparation for work. Not only some but all in the common schools need occupational education as an ingredient of their basic education. To transform what is now going on in the schools to conform with this ideal will be a major operation.

SECTION XI

PROPOSED CRITERIA FOR CITIZEN EVALUATIONS OF PUBLIC OCCUPATIONAL EDUCATION

The primary purpose of a citizen evaluation of public occupational education is to determine how well citizens are discharging their responsibilities toward it. In order to arrive at judgments regarding their own performance, citizens will need to know how well, or how poorly, the arrangements for occupational education that they have provided are working out.

In this section there will be an attempt to present some of the major considerations of an evaluating group in arriving at recommendations to be submitted to a governing board and the public the board represents.

The criteria to be proposed are some that might be used in a school district. They would have to be varied in dealing with a region within a state or a state but the basic considerations would be the same.

Assuming that American ideals and values are the lodestars in evaluating public occupational education, there are ten areas in which citizen evaluations are needed:

1. Policy and policy-making
2. Clientele served and unserved
3. Definition of public purposes to be served
4. Provisions for evaluation
5. Programs and procedures provided
6. Personnel provided
7. Organization and administration
8. Funds and facilities

9. Research and development
10. Public information and relationships

Evaluative Criteria

Space does not permit detailed listing of criteria under each of these headings. Some of the most significant criteria that might be applied in each of the areas to be evaluated will be mentioned.

1. Policy and Policy-Making
    - A. Policy is enacted by an official body. The professional staff advises about and executes policy.
    - B. There is an organized body of policy covering adequately the ten points listed above.
    - C. The policy body is composed of competent and public-spirited persons who understand their responsibilities and who represent their constituents adequately.
    - D. Information adequate for policy-making is supplied to the policy body.
    - E. The policy body is well advised by members of the school staff, consultants, citizens consulting committees, organizations of citizens, and individual citizens.
    - F. The policy body meets regularly, has adequate time to devote to policy issues, and gives a fair amount of its time to occupational education.
    - G. The policy body is in communication with other policy bodies in its region and divides responsibilities for occupational education appropriately with them.

H. The policy body does not confine its interest in occupational education to federally-aided vocational-technical education.

I. Policy takes into account the contributions and the relationships to occupational education conducted by other public agencies and by private agencies.

2. Clientele served and unserved.

A. Appropriate occupational education is provided for all who need it, want it, and can profit from it.

B. The needs of all elements in the possible clientele of occupational education are studied systematically. New types of occupational education are developed for those who have not been served or who have been poorly served. Effective efforts are made to attract and enroll all who should be served.

C. Appropriate occupational education is provided in the elementary schools, the junior high schools, the senior high schools, the area schools, the colleges and universities, and the programs for adults.

D. There is current knowledge by the policy body and the professional staff of the provisions for occupational education, public and private, in the area served.

E. Counsel about occupational opportunities and the means of qualifying for them is accessible to children, youth, and adults.

F. When funds, staff, and facilities prevent adequate services to the total clientele, temporary priorities are carefully and justly established.

G. There is consideration of those who will migrate from the area, as well as those who will remain, in providing occupational education.

3. Public purposes

A. Occupational education is conducted primarily for the benefit of the public. The public interest is believed to be best served when individuals are developed to the full extent of their capacities.

B. The "public interest" is interpreted broadly to include the interests of the local public and that of the people of the state, the nation, and the world.

C. Individual local employers are not given undue consideration in the provision of occupational education.

D. Occupational education is expected to contribute to education for citizenship and participation in public affairs. It is not completely oriented toward job training.

E. There is recognition that values determine the purposes pursued in occupational education. There is critical scrutiny of the values of board members, administrators, teachers, and students which influence occupational education.

F. The major purposes of occupational education, stated by

F. the policy body, are analyzed and implemented by the professional staff.

G. Statements of purposes are revised periodically following regular evaluations of accomplishments. New purposes are added. More feasible purposes are adopted.

H. It is recognized that occupational education is education and that an educational objective is one which promotes in individuals socially desirable changes in values, interests, appreciations, understandings, abilities, and skills.

4. Provisions for evaluation, accomplishments and weaknesses revealed by evaluations

A. Regular, systematic, and thorough evaluations reveal the extent to which the officially authorized purposes of occupational education are being accomplished, secure criticism of these purposes, and estimate the effectiveness of the ways and means in use for accomplishing them.

B. Continuing evaluation by the professional staff is supplemented by periodic evaluations conducted or sponsored by representatives and capable citizens.

C. The findings and recommendations of evaluations are reflected in changed practices in conducting occupational education.

D. Time and money for evaluation are provided.

5. Programs and procedures provided

   A. The policy body recognizes the responsibility of the professional staff for programs and procedures consistent with board policy. It allows adequate staff time for planning, executing, and evaluating them.

   B. Lay assistance is sought by the staff in planning programs and procedures but lay dictation is not accepted. The staff received its mandates from the official bodies, not from citizens without official standing.

   C. Proposed programs and procedures for occupational education are submitted to the policy body for their information and to determine whether they are in line with official policy.

   D. All professional staff members who contribute to occupational education are represented in the planning of programs and procedures for occupational education.

   E. Occupational and general education are balanced and integrated.

   F. Specialized vocational and technical curricula include education in communication, the natural sciences, mathematics, and other related subjects related to the occupations for which students are being prepared.

   G. Course outlines are adequate plans for teaching, not outlines of subject matter.

6. Personnel employed, personnel policies

   A. There is recognition of the critical importance of the

A. professional and nonprofessional personnel.

B. The arrangements provided secure and hold the best possible staff.

C. Sufficient professional staff members are available to provide the relatively small classes required in the vocational subjects.

D. Special personnel for administration, counseling, clerical services, and other functions are adequate.

E. All staff positions are described and the duties each involves are listed.

F. The load of each staff member is computed fairly and time is left for home and family life, community activities, and recreation.

G. Procedures in the employment, compensation, promotion, and discharge of staff members are clearly stated in documents constructed democratically and distributed to all employees.

H. The working conditions of the staff are reviewed regularly. Improvements are made which contribute to greater efficiency and increased personal satisfaction.

I. There is adequate staffing of adult programs as well as youth programs.

J. In-service education of the staff is encouraged and the means for it are provided.

K. The right of students to learn and of teachers to teach is fully guaranteed.

7. Organization and administration
    A. There is continuing study of the organization to provide occupational education.
    B. Reorganization is taking place as it is needed.
    C. Attendance centers are located for the convenience of those likely to participate. Classes for adults are scheduled at times of day, week, and year convenient to them.
    D. Relationships between the policy body and the chief administrator are clearly and fairly defined.
    E. Relationships among administrators and staff members are defined and communication among them is facilitated.
    F. The chief administrator is qualified to administer occupational education or has an assistant specially qualified for its administration.
    G. All who contribute to occupational education are considered to be members of the staff for that field.
8. Funds and facilities
    A. The long-term financial needs for the development of occupational education have been estimated.
    B. The annual budgets for occupational education are democratically planned.
    C. State and national funds from all available sources are used. Additional funds are sought from the local taxing area in whatever amounts they are needed to carry out the program of occupational education believed to be required.

D. All of the education provided for children, youth, and adults is furnished without cost to them or at the minimal cost feasible under the circumstances. If there are fees, the percentage of the costs paid by adults is no higher than the percentage paid for the education of children and youth.

E. Budgeted funds are available for research and development, curriculum planning, in-service education of staff, services of consultants, evaluation, supervision of work experience, staff travel, and other items essential to instruction.

F. Good procedures for the honest and efficient use of funds, the accounting of funds, and purchasing are in effect.

G. Facilities (buildings, equipment, libraries, and teaching aids) are planned in cooperation with the professional staff, utilizing their special knowledge and competence.

H. Facilities are planned with the needs of adults in mind as well as those of children and youth.

I. Procedures in the use of buildings and other facilities, developed by the professional staff and citizens consulting committees, are reviewed by the policy bodies to determine their conformity to general school policies.

J. Building sites are planned with future needs in mind.

K. An adequate and modern library is provided for staff and

K. students in occupational education. Maximum use of the libraries by day and evening students is encouraged.

9. Research and development
    - A. Studies recently conducted or underway are of high quality and relevant to the occupational education in the school unit.
    - B. Funds and staff time are available for research and development.
    - C. Provisions are made for using the products of research and development by others.

10. Public information and relationships
    - A. There is recognition of public control and its implications.
    - B. The public is provided with the information it needs for decisions about occupational education.
    - C. Citizens consulting committees, soundly organized and conducted, are used extensively.

Considerations of Quality

Citizens are properly concerned with the quality as well as the quantity of occupational education provided. They are likely to recommend, wisely, that new services and services to new groups be provided only when there is assurance that programs of high quality can be provided without harm to the quality of existing programs. They are tempted to judge quality by the placement of graduates and the performance of graduates on the job as it is judged by employers. These are valid considerations, but they are not the only considerations.

They will need to know the kinds of students who have been accepted in vocational programs and the progress they have made while in training. They will need records of graduates' progress beyond their first jobs. They will look for evidence that students in training are developing disciplined work habits. They will note the total apparent effects of the programs upon individuals in their capacities as members of families and citizens. They will find that the outcomes of good occupational education are often much more than the acquisition of skills and technical knowledge.

There is sufficient skepticism about the value of vocational education so that some evaluators will want to compare the occupational progress of those who have and have not received this kind of education. This kind of comparison is desirable; it will show the special advantages of the vocationally-educated but it will reveal that other types of education have also contributed to occupational choice, competence, and advancement. There is wide agreement that quality which is reflected in job performance can be built into any kind of education, general or vocational.

SECTION XII

PROPOSED PROCEDURES IN CITIZEN EVALUATIONS OF PUBLIC OCCUPATIONAL EDUCATION

Procedures will vary when evaluations are conducted in a local school district, an area school district, a state, or a region including several states. Each of these kinds of evaluation is needed.

It is easiest to conduct an evaluation in one school unit, but it is unreal to study one unit in isolation. Several agencies, some public and some private, may contribute to the occupational education of an individual. Evaluation should be a device for relating the contributions of these agencies.

In this section there will be a general discussion of procedures which might be used regardless of the area studied. In Section 13 procedures in a complicated three-county area will be spelled out in some detail.

Evaluators may well use a variety of approaches.

There is need for a guiding philosophy which takes into account the issues raised in Section 6. It will require modification as facts and opinions are collected during the evaluation. One of the primary outcomes should be a statement of philosophy or basic beliefs which the public and the governing boards may accept as a basis for policy.

This history of the situation studied should be known. How did occupational education get into the state in which it is found? What historic handicaps must be removed if progress is to be made?

Demographic data regarding the environment in which occupational education is conducted are required. What is the economic and social status of each of the elements comprising the clientele? What is its educational background? What are the "facts of life" regarding the politics and the pressure groups influencing occupational education? What are the social and economic changes in prospect?

There may be profitable studies of the case histories, over a long period, of individuals who have and have not participated in the programs of occupational education provided. These are needed to supplement data, also required, regarding the occupational experiences of recent graduates and other former students in vocational programs.

Interviews in depth serve a useful purpose. Those who might be interviewed include board members, administrators, teachers, parents, students, and representatives of agriculture, business, industry, and labor.

Surveys of public opinion are feasible. These bring out ideas which need to be considered by the evaluators. They also reveal the public's information or lack of information about occupational education and indicate what should be done about providing public information and improving public relationships.

Data of many kinds can be gathered and analyzed. School records provide one source. Often these are inadequate and must be supplemented. One outcome of an evaluation should be the recommendation of improved records and the provision of the means for keeping and using them.

For some phases of an evaluation the best technique is that of a good newspaper reporter who asks the classic questions: who, what, where, when, and why? The questioner must, of course, have the background required to interpret the answers secured.

Documents can be collected which tell much about policy, programs, procedures, staffing, financing, and facilities. Boards and staffs can be observed in action.

Comparisons with other school situations are needed. Dr. R. E. Stake has said: "No school can evaluate the impact of its program without knowledge of what other schools are doing in pursuit of similar objectives."[91]

Dr. Stake has urged the use of "judgment data" as well as "description data," saying that both are essential to the evaluation of educational programs, adding that "It is likely that judgments will become an increasing part of the evaluation report. Evaluators will seek out and record the opinions of persons of special qualifications. These opinions, though subjective, can be very useful and can be gathered objectively, independent of the solicitor's opinions."[92]

It is assumed that we do not yet know all that should be known about procedures in the evaluation of public occupational education. A period of trial and error is in prospect when evaluators will search for the indicators critical in each situation and the means for gathering data regarding each. There can be hope that a few key indicators of the health of occupational education can be found and that the process of evaluation can then be simplified. We know that, even if we find them, they will have to be changed from time to time. The present hazard is that we may not recognize evaluation as the complex process it is and may be tempted to use traditional criteria and procedures which deal with only a part of the critical factors and which may lead to completely wrong conclusions.

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[91] R. E. Stake, "The Countenance of Educational Evaluation," Teachers College Record, 68:535, April, 1967.

[92] Ibid., p. 527.

Steps in Evaluation

Research and development projects are needed in which detailed procedures can be discovered which can be used and will be used across the nation. At this point, it appears that there are four critical steps in citizen evaluation:

1. Development of policy for evaluation by the policy body or bodies officially responsible for the occupational education to be evaluated. Policy should indicate clearly the considerations in evaluation, provide a mechanism for evaluation, insure the autonomy of an evaluating group, and arrange for reports of evaluations to the official body or bodies.
2. Appointment by the governing body or bodies of a sponsoring group of citizens. The principal functions of the sponsors would be (a) to arrange for the selection of the members of a citizens evaluating committee in keeping with criteria and procedures set up by the governing board or boards, (b) to activate the group selected and see that it is instructed regarding its duties, and (c) to provide replacements if vacancies occur.
3. Establishment and operation of a citizens evaluating committee. A committee of nine to fifteen members should be allowed to set up affiliated groups for special purposes. It should have access to any information the evaluated school systems may properly make available. It should have the

services of the schools' professional staffs to the extent that they can be provided without interference with other duties. In the larger situations it should have a small staff of its own. The services of outside consultants should be available to it.

4. Reporting the evaluation. The evaluating committee should report its findings and recommendations to the policy body or bodies involved, the school staffs, and the public. Implementation of the recommendations of the evaluating group is left to the official policy-makers.

Sponsored and Unsponsored Evaluating Committees

These proposed procedures assume policy bodies willing to launch citizen evaluations and to consider their findings seriously. Many boards have learned from experience that this type of citizen participation can be very helpful and that it strengthens a board's position. Many more are unwilling to sponsor citizen evaluation. When policy groups are unwilling, evaluations can be conducted independently by lay citizens. When this is the case, every effort should be made to approximate the arrangements suggested with the hope that the group will be accepted officially because its work proved to be constructive and helpful.

A Suggested Reference

Detailed suggestions for organizing citizen participation are included in a publication available from the College of Education, University of Illinois, Urbana, Illinois.[93]

Most of the suggestions and precautions indicated for local school districts are applicable in other units.

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[93] H. M. Hamlin, Citizen Participation in Local Policy Making for Public Education (Urbana, Illinois: College of Education, University of Illinois, 1960), 35 pp.

SECTION XIII

A PLAN FOR CONDUCTING A CITIZEN EVALUATION IN A THREE-COUNTY AREA

"The Triangle" in North Carolina provides a good opportunity for evaluating occupational education in a complex area and for showing the advantage in studying an area rather than a school district or an institution.

The Triangle includes Durham, Orange, and Wake Counties. There are three major universities: Duke University, the University of North Carolina at Chapel Hill, and North Carolina State University at Raleigh. At its center is a research park of some 5,000 acres where 4,000 scientists and technicians are employed, one of the largest enterprises of its kind in the United States.

The area includes seven institutions of higher education, four area schools, and 122 public school attendance units. In addition to the three universities, there are three four-year colleges attended primarily by Negroes and a four-year college for women. There are two public technical institutes and two private junior colleges. There are 26 public high schools (junior high schools, senior high schools, and junior-senior high schools), 81 public elementary schools, and 12 public schools with grades one through twelve. Viewed cynically, the area could be called an "educational jungle" since there is little coordination of these educational enterprises.

The area is an advanced one. The occupations practices are varied. In March, 1965, 23,350 were employed in manufacturing, 6,370 in agriculture, and 115,945 in other occupations. There is an unusually high percentage of professional and technical workers but also an unusually high percentage of unskilled and semiskilled workers. The State capitol is at Raleigh. The

Raleigh Chamber of Commerce has estimated that there are 10,000 employees of local, state, and federal governments in the city. The area is currently prosperous and the unemployment rate is low. About a fourth of the people are Negroes. There has recently been a heavy migration of Caucasians into the area.

Approximately $1.5 million was expended in 1964-65 for vocational and technical education in the local and area schools. Of this amount approximately $820,000 was spent in the public area schools and $717,365 in the local public schools. The expenditure for vocational education in the local schools was 3.8 percent of the total expenditure by these schools. In addition there were large expenditures, which have not been estimated, for unaided types of occupational education in the local schools, the colleges and universities, the university extension services, private businesses and industries, private business and trade schools, and by public agencies other than the schools and colleges.

In 1964-65 expenditures for federally-aided vocational education in the local public schools were distributed as follows: Home Economics 34 percent, Trades and Industries 24 percent, Distributive Education 10 percent, and Diversified Occupations 6 percent. The distributions of expenditures among these fields by administrative units (school districts) varied widely.

The total enrollment in the public elementary schools and high schools of the area in 1965-66 was 79,983. The percentages of the high school graduates of 1965 who continued their education in colleges, area schools, or specialized vocational schools in the fall of 1965 varied from 44.9 to 73.7 percent in the six administrative units.

Of the 3,724 high school graduates in the spring of 1965 who could be accounted for, 53 percent were in colleges in the fall of 1965; 31 percent were gainfully employed or were in the Armed Forces; and 16 percent were enrolled in trade, business, and nursing schools.

Proposed Procedures in a Citizen Evaluation of Public Occupational Education in the Area

Evaluation of public occupational education in an area such as this should be designed so that it will encourage, and not discourage, evaluations in the individual educational units. The regional approach should be very helpful in deciding the functions each unit should serve and hence the evaluations that should be applied to it.

It is proposed that the initiative in the Tri-County Area be taken by the Center for Occupational Education, North Carolina State University. Funds from the Center would be made available for administration, consultants, data-gathering, tabulation and summary of data, preparing and publishing reports, and disseminating the findings through conferences. Contributions of time by citizens and staff members and some funding would be requested from the participating units. Similar area studies are proposed in three other southern states.

The Center would prepare detailed plans for the management of the project including:

A. The selection and the functioning of a consulting committee.

B. Arrangements to be made with the cooperating school units.

C. The data to be gathered and the uses to be made of them.

D. The assistance to be given the cooperating schools in interpreting and implementing the findings.

E. The wider dissemination of experience and information gained from the project.

The Sponsoring Committee

Sponsors of the project would be sought among the most distinguished and public-spirited citizens of the area. It is believed that sponsorship would not be hard to achieve. The committee would be asked to use the following procedure.

A. Secure nominations for membership in the evaluating committee from a representative sample of the population of the area.

B. Choose from those nominated and others the sponsoring committee may suggest nine to fifteen members of an evaluating committee. The individual members of the evaluating committee recommended should have the following characteristics: high general ability, understanding of the importance of occupational education and of other types of public education, willingness to spend time and exert effort as a committee member, and personal characteristics essential to the success of the committee: integrity, responsibility, maturity, the ability to cooperate, a constructive attitude, openmindedness, and tolerance of varying points of view.

The group as a whole should be representative of all elements in the area. A "representative" committee is not one chosen by lot but one which includes some of the most capable people in the area who, among them, have sympathetic contacts with all of the various groups within the area. A representative committee would provide a fair sampling by sex, race, geographical distribution, age, occupation, schooling, religion, and political and organizational affiliation. Parents and non-parents, old and new residents of the area and persons favorable to and critical of current policies for occupational education would be included in proportion to their numbers. Each member would come to the group as an individual citizen, not as the representative of any institution or organization. Persons who might serve ably as chairmen should be included.

C. Notify the persons selected and ask them to serve.

D. Provide a reserve list of persons who could be asked to fill vacancies should they occur.

E. Supply the evaluation committee with information about persons nominated for the committee but not selected who could be considered in setting up special committees affiliated with the evaluation committee.

The use of a selection committee as proposed is considered critical in the whole process. Some of the advantages gained are these:

A. Those responsible for the occupational education to be evaluated cannot be accused of stacking the evaluating committee with persons favorable to the current program.

B. The people of an area appreciate an opportunity to participate in the choice of members.

C. Those selected for membership can be told the fair and careful manner of their selection and impressed that they are considered, after careful deliberation, to be the best persons to serve. Almost all selected agree to serve.

If arrangements for continuing evaluation of occupational education in the area should develop, and it is hoped that they will, a new sponsoring committee should be chosen each three years, which would make a new canvass to secure nominations for the evaluation committee. The evaluation committee should be kept from becoming self-perpetuating through the choice of members to fill its vacancies. Experience has shown that a self-perpetuated committee tends to become unrepresentative of the people of an area, lose touch with the schools' constituents, and grow ineffective in influencing public opinion.

Evaluation Committee Procedures

The committee would be authorized to set up affiliated committees or task forces for special purposes. These committees could include professional educators and students as well as lay citizens. Members would be chosen because of their qualifications to deal with the special issues assigned to the committees.

The minimum complement of affiliated committees would be one for each of the six major phases of the project: policy and policy-making, the local schools, the area schools, the colleges and universities, adult education, and privately conducted occupational education.

The project staff, supplied by North Carolina State University, would have the help of the evaluation committee in reviewing plans, securing cooperation, interpreting findings, and developing and implementing recommendations. The report to the official bodies concerned and to the public would be a report of the evaluation committee, not a report by the project staff.

The Project Staff

It is assumed that four to six professional persons would be required to direct the six subprojects, already mentioned. Consultants would be needed in planning the details of the project and in interpreting project findings. Assistants would be used in gathering, tabulating, and analyzing data. The cooperating school systems would be expected to provide assistance.

Liaison with School Officials

The boards and administrators of the schools and colleges would be involved from the beginning, asked for suggestions, and kept informed as the project progresses.

Data to be Gathered

The data to be gathered would be those implied by the evaluation criteria listed in Section 11 and discussed in Section 12 of this document. Other criteria, applicable in the area, would be added to those listed.

Training and Development Phases

As data are gathered and conclusions are reached, there would be dissemination of findings among those lay and professional people able to effect changes. Consultative help would be given school units wishing to implement the findings. A record of changes made and their apparent effects would be kept. Policy bodies would be assisted in revising their policies for occupational education. Continuing arrangements for evaluation after the expiration of the project would be sought.

Dissemination of findings in other parts of North Carolina, in 12 other southern states, and in the rest of the nation would be provided through conferences and publications.

Duration of the Project

It is estimated that three years would be required to complete the initial phase of the project.

Estimated Cost

The cost is estimated at $400,000, about one dollar for each $120,000 spent annually for occupational education in the United States. This amount would cover the cost of the project in the North Carolina Triangle and the costs of assisting three other states in setting up similar projects.

No apology for an expenditure of this magnitude is needed. The costs of evaluation are valid charges against public education. It is legitimate and necessary to spend to encourage evaluation and to devise usable evaluation processes. One purpose of the project would be to find the ways in which the costs of adequate evaluations may be reduced. Analysis will reveal that some criteria are better than others, which can be omitted. At the start, there must be use of a wide variety of criteria since we do not know which are most significant.

Practical Limitations

It would be desirable to study all public occupational education within the area including the education for the professions provided for the residents of the area. Three universities in the Triangle provide extensive programs which educate for the professions; many residents of the area secure their professional education elsewhere.

It is not expected that the roles of the colleges and universities can be studied as intensively as vocational and technical education, but they cannot be ignored. Data which could be gathered would include:

1. The percentage of high school graduates who enroll in colleges and universities.
2. The percentage of these in the institutions in the Triangle who persist until graduation.
3. The services of the colleges and universities in the Triangle to occupational education in the local and area schools of the region.
    - A. Preservice and inservice education of personnel given.
    - B. Assistance in designing curricula, planning facilities, and providing teaching aids.
    - C. Consultant services provided.
    - D. Extent of transfer from the area schools to the colleges.

It would be desirable to study the subsequent careers of an estimated 60 percent of those who enter college who drop out or are eliminated, the occupations these persons enter, and the preparation for these occupations which they receive.

SECTION XIV

CONCLUDING COMMENTS

The approach to the evaluation of occupational education suggested in this publication is unique in several respects:

1. It is confined to evaluation by citizens.
2. Its principal concern is with finding the criteria and procedures useful and usable in school districts, larger areas within states, states, regions including several states, and the nation.
3. It is guided by accepted American ideals and values.
4. It is concerned with all public occupational education, not merely with federally-aided vocational-technical education.
5. It deals with occupational education from the nursery school through the university and includes adult education.
6. It suggests study of all of the factors influencing occupational education including many not usually considered in evaluations.
7. It seeks to find the apparent effects of the evaluation procedures now in use.
8. It attempts not only to evaluate the current situation but to find the reasons for it.
9. It is related to an action program to improve the situation discussed.
10. It stresses efforts to improve the evaluation process and to encourage continuing evaluation.

Consultants' Reactions

Approximately 25 consultants from many parts of the nation have shared in shaping the concept of evaluation and the plans for applying it that are described in this document. Excerpts from typical statements by consultants follow.

> "Your project differs from the usual evaluation project as night differs from day."
>
> "The need for adequate criteria and defined procedures for the evaluation of occupational education is acute."
>
> "The work you are doing is highly significant and should be continued by any and all means at your disposal."
>
> "There can be no research or development project of greater significance."
>
> "The project should be conducted as planned; it should not be narrowed; and definitely should not be discontinued."

The Risks of Other Approaches to Evaluation

We dare not be further misled by partial and prejudiced evaluations of occupational education. It cannot be judged solely in terms of first-job placements; the findings twenty years later may be markedly different. We cannot put upon the high schools or vocational educators in the high schools, responsibilities they cannot possibly discharge. All parts of our system of public education must contribute. The whole burden of occupational education cannot fall on our system of public education, whose resources are small compared with those for occupational education conducted privately. We need not be apologetic about students who do not pursue indefinitely the occupations for which they were first trained but who advance to better occupations. We cannot rely unduly upon evaluations by the profession; lay citizens do not and they are the final evaluators.

Lay Citizens Are Not to be Feared

Professional occupational educators must rid themselves of their fears of lay citizens. Frequently they go beyond professional groups in asking for new funds, programs, personnel, and facilities.

American Values Must be Upheld and Strengthened Through Evaluations

Finally, the public schools and colleges are expected to be exemplars and guardians of American ideals and values. These can be evoked in evaluations or disregarded flagrantly. Their frequent neglect in evaluations of public education provide no excuse for occupational educators. They can set the pace; they often have.

REFERENCES

Advisory Commission on Intergovernmental Relations. 1967 Legislature Program of the Advisory Commission on Intergovernmental Relations. Washington, D. C.: The Commission, 1967.

Beard, H. G. (ed.). National Vocational-Technical Education Seminar on Occupational Mobility and Migration. Center Seminar and Conference Report No. 2. Raleigh, North Carolina: Center for Occupational Education, North Carolina State University, 1966.

Blakely, Robert J. "The Thistle," Adult Leadership, 14:10:322-324, 348-349, April, 1966.

Bobbitt, Franklin. The Curriculum of Modern Education. New York: McGraw-Hill Book Co., 1941.

Carrol, Adger B. "Value of Human Capital Created by Investments in Technical Education." Unpublished Doctor's dissertation, North Carolina State University, Raleigh, 1966.

Cohen, Wilbur J. "Education and Learning," The Annals of the American Academy of Political and Social Science, 373:79-101, September, 1967.

Committee on Education, Guidance, and Work. Reorganizing Secondary Education in New York City. New York: Public Education Association, 1963.

David, Henry. Manpower Policies for a Democratic Society. New York: Columbia University Press, 1965.

Denison, Edward F. The Sources of Economic Growth in the United States and the Alternatives Before Us. New York: Committee on Economic Development, 1962.

Edwards, Newton. The Courts and the Public Schools. Chicago: University of Chicago Press, 1955.

Espenschied, Roland F. "Major Findings of a Study of Parental Attitudes Toward Vocational Agriculture." Unpublished Doctor's dissertation, University of Illinois, Urbana, 1961.

Exton, Elaine. "State Legislators Urged to Install Planning-Programming-Budgeting System," American School Board Journal, 154:2:13-16, February, 1967.

_______. "A Time for School Boards to Study the New Federal Partnerships," American School Board Journal, 154:3:43, March, 1967.

_______. USOE Uses Computer-Based Models to Evaluate Education," American School Board Journal, 154:1:44, January, 1967.

Face, W. L., E. R. F. Flug, and R. S. Swanson. "A Conceptual Approach to the Study of American Industry," American Vocational Journal, 40:3:15-17, March, 1965.

Faucett, Claude W. "Responsibilities of Nonpublic Agencies for Conducting Vocational Education," Vocational Education. Melvin L. Barlow, editor. Sixty-fourth Yearbook of the National Society for the Study of Education, Part I. Chicago: The University of Chicago Press, 1965.

Filer, Louis. The President Speaks. New York: G. P. Putnam and Sons, 1964.

Final Report of the Summer Study on Occupational, Vocational, and Technical Education. Cambridge, Massachusetts: Institute of Technology, 1965.

Galbraith, John Kenneth. The New Industrial State. Boston: Houghton Mifflin Co., 1967.

Gardner, John W. "The Administration: A Sense of What Should Be," Time, 89:21, January 20, 1967.

_______. Excellence. New York: Harper and Row Publishers, 1961.

George Peabody College for Teachers, Division of Surveys and Field Services. High Schools in the South: A Fact Book. Nashville, Tennessee: The Division, 1966.

Hamlin, H. M. Citizen Participation in Local Policy Making for Public Education. Urbana, Illinois: College of Education, University of Illinois, 1960.

Hand, Harold C. "National Assessment Viewed as the Camel's Nose," Phi Delta Kappan, 47:8-12, September, 1965.

Harbison, Frederick and Charles A. Myers. Education, Manpower, and Economic Growth. New York: McGraw-Hill Book Co., 1964.

Harris, Norman C. Education and Training for the World of Work. Kalamazoo, Michigan: The W. E. Upjohn Institute for Employment Research, 1963.

Heller, Walter W. New Dimensions of Political Economy. Cambridge, Massachusetts: Harvard University Press, 1966.

Howe, Harold, II. "The Neglected Majority," Bulletin of the National Association of Secondary School Principals, 51:319:41-42, May, 1967.

Johnstone, J. W. C. and R. J. Rivera. Volunteers for Learning. Chicago: Aldine Publishing Co., 1965.

Keppel, Francis. The Necessary Revolution in American Education. New York: Harper and Row, 1966.

Knoell, Dorothy M. Toward Educational Opportunity for All. Albany, New York: Office of the Executive Dean for Two-Year Colleges, 1966.

Lipset, Seymour Martin. "The Value Pattern of Democracy: A Case Study in Comparative Analysis," American Sociological Review, 28:515-531, August, 1963.

McLure, William P. Federal Policy and the Public Schools. Washington, D. C.: American Association of School Administrators, 1967.

Mead, Margaret. "A Redefinition of Education," NEA Journal, 48:7:17, October, 1959.

Moore, Dorothy L. A Preliminary Draft of a Study of Vocational Education in Hawaii Public Secondary and Vocational Schools. 3 parts. Honolulu, Hawaii: Legislative Reference Bureau, University of Hawaii, 1966.

Moran, Alonzo G. "Employment and Public Policy," Public Policy and Manpower Resources. New York: Columbia University Press, 1964.

Morgan, Robert M. and David S. Bushnell. "Designing an Organic Curriculum." Washington, D. C.: Bureau of Research, U. S. Office of Education, 1966. (Mimeographed.), or Morgan, Robert M. and David S. Bushnell. "Designing an Organic Curriculum," National Business Education Quarterly, 39:5-14, March, 1967.

National Association of Secondary School Principals, National Committee on Secondary Education. Educating for Work. Washington, D. C.: The Association, 1966.

Panel of Consultants on Vocational Education. Education for a Changing World of Work. Washington, D. C.: U. S. Government Printing Office, 1963.

Platt, William J. "Education-Rich Problems and Poor Markets," Management Science, 8:4:411, July, 1962.

President's Committee on Youth Employment. The Challenge of Jobless Youth. Washington, D. C.: U. S. Government Printing Office, 1963.

Rempson, Joe L. "Community Control of Local School Boards," Teachers College Record, 68:7:571-578, April, 1967.

Rice, Arthur H. "School Boards Reach New Heights of Importance," Nation's Schools, 80:3:10, September, 1967.

Rivlin, Alice M. "Critical Issues in the Development of Vocational Education," *Unemployment in a Prosperous Economy*, William G. Bowen and Frederick H. Harbison, editors. Princeton, New Jersey: Princeton University, 1965.

Roeder, John A. and H. M. Hamlin. "New Designs in Vocational and Practical Arts Education: The Northeast," *American Vocational Journal*, 42:4:18, April, 1967.

Sanford, Terry. *But What About the People?* New York: Harper and Row Publishers, 1966.

_______ *Storm Over the States*. New York: McGraw-Hill Book Co., 1967.

Schultz, Theodore M. *The Economic Value of Education*. New York: Columbia University Press, 1963.

Sneeden, David. "The Vocational-Education Movement: A Critical Inventory of Policies," *Objectives and Problems of Vocational Education*, Edwin A. Lee, editor. New York: McGraw-Hill Book Co., 1938.

Spencer, Steven M. *Saturday Evening Post*, 40:98, February 25, 1967.

Stake, R. E. "The Countenance of Educational Evaluation," *Teachers College Record*, 68:523-540, April, 1967.

Tyler, Ralph W. "Assessing the Progress of Education," *Phi Delta Kappan*, 47:13-16, September, 1965.

U. S. Bureau of the Census. *U. S. Census of Population: Occupational Characteristics*. Washington, D. C.: The Bureau, 1961.

U. S. Department of Labor. *Selected Manpower Indicators for the States*. Washington, D. C.: The Department, 1963.

_______, Bureau of Labor Statistics. *Special Labor Force Report*, No. 32. Washington, D. C.: U. S. Government Printing Office, 1963.

U. S. House of Representatives, General Subcommittee on Education. *Hearings on the Vocational Education Amendments of 1966*. 2 vols. Washington, D. C.: U. S. Government Printing Office, 1967.

U. S. Office of Education. *A Review of Activities in Federally-Aided Programs of Vocational and Technical Education, Fiscal Year 1964*. Washington, D. C.: The Office, 1966.

Venn, Grant. *Man, Education, and Work*. Washington, D. C.: American Council on Education, 1964.

Wilensky, Harold L. "Careers, Counseling, and the Curriculum," *The Journal of Human Resources*, 2:1:33-34, Winter, 1967.

Williamson, William B. "Moral-Spiritual Values," Teachers College Record, 68:7:565, April, 1967.

Worthington, Robert. "Planning and Strategies for Developing More Effective Teacher Education Programs," Institute on Critical Issues in Vocational and Technical Teacher Education in Small Colleges and Universities, A. P. Bell, editor. Center Seminar and Conference Report No. 8. Raleigh, North Carolina: Center for Occupational Education, North Carolina State University, 1967. Pp. 54-60.

TOPICAL BIBLIOGRAPHY

EVALUATION--GENERAL

Boykin, Leander L. "What is Evaluation?", *Journal of Educational Research*, 51:529-534, March, 1958.

Hamlin, H. M. "What is Evaluation?", *American Vocational Journal*, 42:5: 19-22, May, 1967.

Hogan, Elizabeth P. and Robert L. Thorndike. "Evaluation," *Encyclopedia of Educational Research*, Chester W. Harris, editor. Third edition. New York: The Macmillan Co., 1960.

Lucio, William H. "Evaluation of the Educational Program," *Review of Educational Research*, 29:2:165-176, April, 1959.

Orata, Pedro T. "Evaluating Evaluation," *Journal of Educational Research*, 33:641-661, May, 1940.

Stake, R. E. "The Countenance of Educational Evaluation," *Teachers College Record*, 68:523-540, April, 1967.

Stufflebeam, David L. "A Depth Study of the Evaluation Requirement," *Theory into Practice*, 5:3:121-133, March, 1967.

AMERICAN IDEALS AND VALUES

Albrecht, Milton C. "Does Literature Reflect Common Values?", *American Sociological Review*, 21:722-729, December 18, 1956.

Barrett, Donald N. (ed.). *Values in America*. Notre Dame, Indiana: Notre Dame University, 1961.

Blakeley, Robert J. "Human Values for Human Beings," *Adult Leadership*, 15:8:265-266, 284-286, 304, February, 1967.

______. "The Thistle," *Adult Leadership*, 14:10:322-324, 348-349, April, 1966.

Brickman, William W. and Stanley Lehrer (eds.). *Automation, Education, and Human Values*. New York: School and Society, 1966.

Burke, John G. (ed.). *The New Technology and Human Values*. Belmont, California: Wadsworth Publishing Co., 1966.

Butz, O. (ed.). *To Make a Difference--A Student Looks at America: Its Values, Its Society, and Its System of Education*. New York: Harper and Row, 1967.

Cornuelle, Richard C. Reclaiming the American Dream. New York: Random House, 1965.

Counts, George S. "American Civilization--Our Moral Commitments," Education and the Promise of America. New York: The Macmillan Co., 1945.

Dahlke, H. Otto. Values in Culture and Classroom. New York: Harper and Row, 1958.

Ebenstein, William, Herman C. Pritchett, Henry A. Turner, and Dean Mann. American Democracy in World Perspective. New York: Harper and Row, 1967.

Gardner, John W. Excellence. New York: Harper and Row, 1961.

_______. "National Goals in Education," Goals for Americans. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1960.

Greenstein, Fred I. "New Light on Changing American Values: A Forgotten Body of Survey Data," Social Forces, 42:441-450, May, 1964.

Houle, Cyril O. The Uncommon School. Syracuse, New York: Syracuse University, 1966.

Huus, Helen (ed.). "Values for a Changing America," 52nd Schoolmen's Week Proceedings. Philadelphia: University of Pennsylvania, 1966.

Katz, Martin. Decisions and Values: A Rationale for Secondary School Guidance. New York: College Entrance Examiniation Board, 1963.

Keenan, Dorothy M. "An Exploration of Value Patterns." Unpublished Doctor's dissertation, University of Illinois, Urbana, 1962.

Kluckhohn, Clyde. "Have There Been Discernible Shifts in American Values During the Past Generation?", The American Style. New York: Harper and Row, 1958.

_______. "The Scientific Study of Values," Three Lectures. Toronto, Ontario: University of Toronto Press, 1959.

Kluckhohn, Florence. Variations in Value Orientations. Evanston, Illinois: Row, Peterson and Co., 1961.

Lipset, Seymour Martin. "The Value Patterns of Democracy: A Case Study in Comparative Analysis," American Sociological Review, 28:515-531, August, 1963.

Lundbert, George. "Science, Scientists, and Values," Social Forces, 30:4: 373-379, May, 1952.

Maslow, Abraham (ed.). New Knowledge in Human Values. New York: Harper and Row, 1959.

"Modern Education and Human Values," Pitcairn-Crabbe Lectures. 5 vols. Pennsylvania: University of Pittsburgh, 1946-54.

Morrison, Elting E. (ed.). The American Style. New York: Harper and Row, 1958.

Myrdal, Gunnar. An American Dilemma. New York: Harper and Row, 1962.

______. Value in Social Theory. New York: Harper and Row, 1958.

Osborn, Barbara L. "The Development of an Instrument to Determine Value Patterns of Homemaking Teachers." Unpublished Doctor's dissertation, Cornell University, Ithaca, New York, 1960.

Pefper, Stephen C. The Sources of Value. Berkeley: University of California Press, 1958.

Raths, R. E. et al. Values and Teaching. Columbus, Ohio: Charles E. Merrill Books, 1966.

Rockefeller Brothers Fund. The Pursuit of Excellence: Education and the Future of America. Special Studies Project Report V. Garden City, New York: Doubleday and Co., 1957.

Root, Elihu. The Citizen's Part in Government. New York: C. Scribner's Sons, 1907.

Rosenberg, Morris. Occupations and Values. Glencoe, Illinois: Free Press, 1952.

Sahakian, William S. Systems of Ethics and Value Theory. New York: Philosophical Library, 1963.

Sanford, Terry. But What About the People? New York: Harper and Row, 1966.

Shupe, Richard J. "A Question of Values: How High School Teachers View Cooperative Education." Unpublished Master's study, Michigan State University, East Lansing, 1962.

Smith, Bradford. Why We Behave Like Americans. Philadelphia: J. B. Lippincott Co., 1957.

Smith, Timothy L. "Work and Human Worth," Christian Century, 84:35:1094-1097, August 30, 1967.

Thompson, Orville E. "How Important are Occupational Values of Students of Agriculture?", Agricultural Education Magazine, 35:238-240, May, 1963.

University of Illinois, Cooperative Extension Service. "Changing Value Orientations and Beliefs on the American Scene," Illinois in Transition. Urbana, Illinois: Cooperative Extension Service, University of Illinois, 1966.

Values in American Education. Bloomington, Indiana: Phi Delta Kappa, 1964.

Vogt, Evon Z. and John M. Roberts (eds.). The People of Rimrock: A Comparative Study of Value Systems. Evanston, Illinois: Row, Peterson and Co., 1960.

Williams, Robin M., Jr. "Individual and Group Values," Annals of the American Academy of Political and Social Science, 371:1:20-37, May, 1967.

Williamson, William B. "Moral-Spiritual Values," Teachers College Record, 68:7:558-565, April, 1967.

CRITICAL ISSUES IN EVALUATING OCCUPATIONAL EDUCATION

Advisory Commission on Intergovernmental Relations. Metropolitan Social and Economic Disparities: Implications for Intergovernmental Relations in Central Cities and Suburbs. Washington, D. C.: The Commission, 1965.

Anderson, C. Arnold. "The Adaptation of Education to a Mobile Society," The Journal of Human Resources, 2:2:221-253, Spring, 1967.

Barry, Ruth and Beverly Wolf. An Epitaph for Vocational Guidance. New York: Bureau of Publications, Teachers College, Columbia University, 1962.

Bauer, Raymond A. (ed.). Social Indicators. Cambridge, Massachusetts: MIT Press, 1966.

Beard, H. G. (ed.). National Vocational-Technical Education Seminar on Occupational Mobility and Migration. Center Seminar and Conference Report No. 2. Raleigh, North Carolina: Center for Occupational Education, North Carolina State University, 1966.

Benson, Charles Scott. The School and the Economic System. Chicago: Science Research Associates, 1966.

Bernstein, Abraham. The Education of Urban Populations. New York: Random House, 1967.

Blau, Peter M. and Otis Dudley. The American Occupational Structure. New York: John Wiley and Sons, 1967.

Blaug, Mark. *Economics of Education*. New York: Pergamon Press, 1966.

Bobbitt, Franklin. *Curriculum of Modern Education*. New York: McGraw-Hill Book Co., 1941.

Bowen, William G. and Frederick Harbison (eds.). *Unemployment in a Prosperous Economy. Report of Princeton University Manpower Symposium*. Princeton, New Jersey: Princeton University, 1965.

Broughton, William H. "Millions for What?", *Journal of Industrial Arts Education*, 26:2:11-12, November, 1966.

Cain, Glen G. *Married Women in the Labor Force: An Economic Analysis*. Chicago: University of Chicago Press, 1966.

Campbell, Ronald F. "Federal Impact on Board's Decisions," *American School Board Journal*, 154:3:38-42, March, 1967.

Chansky, Norman M. *Untapped Good. The Rehabilitation of School Dropouts*. Springfield, Illinois: C. C. Thomas, 1966.

Chase, Edward T. "Learning to be Unemployable," *Harper's Magazine*, 226: 33-40, April, 1963.

Cohen, Eli E. and Louise Kapp (eds.). *Manpower Policies for Youth*. New York: Columbia University Press, 1966.

Cohen, Wilbur J. "Education and Learning," *The Annals of the American Academy of Political and Social Science*, 373:79-101, September, 1967.

Coleman, J. S. *et al*. *Equality of Educational Opportunity*. Washington, D. C.: U. S. Government Printing Office, 1966.

Committee on Economic Development. *Raising Low Incomes through Improved Education*. New York: The Committee, 1965.

Cowhig, James D. and Calvin L. Beale. "Vocational Agriculture Enrollment and Farm Employment Opportunities," *Southwestern Social Science Quarterly*, 47:4:413-423, March, 1967.

David, Henry. *Manpower Policies for a Democratic Society*. New York: Columbia University Press, 1965.

Davis, Russell C. *Planning Human Resource Development*. Chicago: Rand-McNally and Co., 1967.

Day, Glen R. and Henry M. Reitan. "Geographic Mobility: A Needed Dimension," *Vocational Guidance Quarterly*, 15:4:289-293, June, 1967.

Face, W. L., E. R. F. Flug, and R. S. Swanson. "A Conceptual Approach to the Study of American Industry," *American Vocational Journal*, 40:3:15-17, March, 1965.

Faucett, Claude W. "Responsibilities of Nonpublic Agencies for Conducting Vocational Education," Vocational Education, Melvin L. Barlow, editor. Sixty-fourth Yearbook of the National Society for the Study of Education, Part I. Chicago: The University of Chicago Press, 1965.

Final Report of the Summer Study on Occupational, Vocational, and Technical Education. Cambridge, Massachusetts: Institute of Technology, 1965.

Galbraith, John Kenneth. The New Industrial State. Boston: Houghton Mifflin Co., 1967.

George Peabody College for Teachers, Division of Surveys and Field Services. High Schools in the South: A Fact Book. Nashville, Tennessee: The Division, 1966.

Ginzberg, Eli. The Development of Human Resources. New York: McGraw-Hill Book Co., 1966.

Hamlin, H. M. "New Designs in Vocational and Practical Arts Education: The South," American Vocational Journal, 39:9:12-15, December, 1964.

_______, and Allen Lee. "New Designs in Vocational and Practical Arts Education: The West," American Vocational Journal, 40:8:20-23, November, 1965.

Harbison, Frederick and Charles A. Myers. Education, Manpower, and Economic Growth. New York: McGraw-Hill Book Co., 1964.

Harris, Norman C. Education and Training for the World of Work. Kalamazoo, Michigan: The W. E. Upjohn Institute for Employment Research, 1963.

Heller, Walter W. New Dimensions of Political Economy. Cambridge, Massachusetts: Harvard University Press, 1966.

Herman, Melvin and Stanley Sadofsky. Youth-Work Programs: Problems of Planning and Operation. New York: New York University, 1966.

Hodgkinson, Harold L. Education, Interaction, and Social Change. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1967.

Howe, Harold, II. "The Neglected Majority," Bulletin of the National Association of Secondary School Principals, 51:319:41-42, May, 1967.

Iowa State University, Center for Agricultural and Economic Development. Family Mobility in Our Dynamic Society. Ames, Iowa: Iowa State University Press, 1965.

Johnstone, J. W. C. and R. J. Rivera. Volunteers for Learning. Chicago: Aldine Publishing Co., 1965.

m

Jones, Garth. Planned Organizational Change. Los Angeles: Center for Research in Public Organization, School of Public Administration, University of Southern California, 1964.

Kaufman, Jacob J. and Morgan V. Lewis. The Issues, Evaluation, and Potential of Vocational Education in Pennsylvania. University Park, Pennsylvania: Institute for Research on Human Resources, 1967.

Kaufman, Jacob J. et al. The Role of the Secondary Schools in the Preparation of Youth for Employment. University Park, Pennsylvania: Institute for Research on Human Resources, 1967.

Keller, Franklin J. Vocationally Talented Pupils. New Brunswick, New Jersey: Division of Field Studies and Research, Rutgers--The State University, 1962.

Kemp, Barbara. The Youth We Haven't Served. A Challenge to Vocational Education. Washington, D. C.: U. S. Government Printing Office, 1966.

Keppel, Francis. The Necessary Revolution in American Education. New York: Harper and Row, 1966.

Landy, Edward and Arthur M. Kroll. Guidance in American Education. 3 vols. Cambridge, Massachusetts: Harvard University Press, 1966.

Lassiter, R. L., Jr. "The Association of Income and Education by Region, Race, and Age," Southern Economic Journal, 32:1:15-22, July, 1965.

Lecht, Leonard. "The Changing Occupational Structure with Implications for Education," The Emerging Role of State Departments of Education with Implications for Vocational Education. Columbus, Ohio: Center for Vocational and Technical Education, Ohio State University, 1967.

McConnell, Helen L. "A Critical Analysis of the Implications of Selected Philosophies of Education for Home Economics Education." Unpublished Doctor's dissertation, Michigan State University, East Lansing, 1965.

McLure, William P. et al. Vocational and Technical Education in Illinois: Tomorrow's Challenge. Urbana, Illinois: Bureau of Educational Research, University of Illinois, 1960.

Maddox, James G. et al. The Advancing South: Manpower Prospects and Problems. New York: The Twentieth Century Fund, 1967.

Marshall, F. Ray and Vernon M. Briggs, Jr. The Negro and Apprenticeship. Baltimore, Maryland: Johns Hopkins Press, 1967.

Mason, Ralph E. and Peter G. Haines. Cooperative Occupational Education. Danville, Illinois: The Interstate, 1965.

Mead, Margaret. "A Redefinition of Education," NEA Journal, 48:7:17, October, 1959.

_______. "Why is Education Obsolete?", Harvard Business Review, 36:23-30, November-December, 1958.

Morlan, Robert L. Intergovernmental Relations in Education. Minneapolis: University of Minnesota, 1950.

Morphet, Edgar L. and Charles O. Ryan (eds.). Implications for Education of Prospective Changes in Society. Denver, Colorado: Project Office, Designing Education for the Future, 1967.

_______ ___ _______. Planning and Effecting Needed Changes in Education. Denver, Colorado: Project Office, Designing Education for the Future, 1967.

_______ ___ _______. Prospective Changes in Society by 1980 Including Some Implications for Education. Denver, Colorado: Project Office, Designing Education for the Future, 1966.

Mueller, Kate Hevner. Educating Women for a Changing World. Minneapolis: University of Minnesota Press, 1967.

National Commission on Technology, Automation, and Economic Progress. Technology and the American Economy. Washington, D. C.: U. S. Government Printing Office, 1966.

Nelson, N. J., F. J. Woerdehoff, and J. K. Coster. Vocational Education in the Public Schools as Related to Social, Economic, and Technical Trends. 2 vols. Lafayette, Indiana: Purdue University, 1960.

Oleon, Sally J. Changing Patterns in Continuing Education for Business. Brookline, Massachuse Center for the Study of Liberal Education for Adults, 1967.

Parsons, Talcott and Kenneth B. Clark (eds.). The Negro American. Boston: Houghton Mifflin Co., 1966.

Perrella, Vera C. "Employment of School Age Youth, October, 1966," Monthly Labor Review, 90:8:20-26, August, 1967.

President's Committee on Youth Employment. The Challenge of Jobless Youth. Washington, D. C.: U. S. Government Printing Office, 1963.

Prosser, Charles A. and Thomas H. Quigley. Vocational Education in a Democracy. Chicago: American Technical Society, 1948.

"The Returns to Geographic Mobility: A Symposium," Journal of Human Resources, 2:4:427-537, Fall, 1967.

Rivlin, Alice M. "Critical Issues in the Development of Vocational Education," Unemployment in a Prosperous Economy. William G. Bowen and Frederick H. Harbison, editors. Princeton, New Jersey: Princeton University, 1965.

Roeder, John A. and H. M. Hamlin. "New Designs in Vocational and Practical Arts Education: The Northeast," American Vocational Journal, 42:4:16-18, April, 1967.

Rosenberg, Jerry M. Automation, Manpower, and Education. New York: Random House, 1966.

Russell, James E. Change and Challenge in American Education. Boston: Houghton Mifflin Co., 1965.

Sanford, Terry. Storm Over the States. New York: McGraw-Hill Book Co., 1967.

Simon, Kenneth A. and Vance W. Grant. Digest of Educational Statistics 1966. Washington, D. C.: U. S. Government Printing Office, 1966.

Smelser, N. J. and S. M. Lipset (eds.). Social Structure and Mobility in Economic Development. Chicago: Aldine Publishers, 1966.

Smith, Harold T. Education and Training for the World of Work. Kalamazoo, Michigan: The W. E. Upjohn Institute for Employment Research, 1963.

Spencer, Steven M. Saturday Evening Post, 40:98, February 25, 1967.

Super, Donald E. "Floundering and Trial After High School." Project financed under Section 4(c), Vocational Education Act of 1963. Currently underway.

Tiedeman, David V. and Robert P. O'Hara. Career Development: Choice and Adjustment. New York: College Entrance Examination Board, 1963.

U. S. Bureau of the Census. U. S. Census of Population: Occupational Characteristics. Washington, D. C.: The Bureau, 1961.

U. S. Chamber of Commerce. Here's the Issue: Vocational Education. Washington, D. C.: The Chamber, September 8, 1967.

U. S. Department of Commerce. The Geographic Mobility of Labor. Washington, D. C.: The Department, 1964.

U. S. Department of Labor. Formal Occupational Training of Adult Workers. Manpower Automation Research Monograph No. 2. Washington, D. C.: U. S. Government Printing Office, December, 1954.

_______. Mobility and Worker Adaptation to Economic Change in the United States. Manpower Research Bulletin No. 1. Washington, D. C.: The Department. 1963.

_______. Selected Manpower Indicators for the States. Washington, D. C.: The Department, 1963.

______, Bureau of Labor Statistics. *Employment of High School Graduates and Dropouts in 1965*. Washington, D. C.: The Department, 1966.

______. *Geographic Mobility and Employment Status, March 1962-March 1963*. Special Labor Force Report 44. Washington, D. C.: The Department, 1964.

______. *Out-of-School Youth--Two Years Later*. Special Labor Force Report No. 71. Washington, D. C.: The Department, 1966.

______. *Special Labor Force Report*, No. 32. Washington, D. C.: U. S. Government Printing Office, 1963.

U. S. Office of Education. *Educationally Deficient Adults: Their Education and Training Needs*. Washington, D. C.: U. S. Government Printing Office, 1965.

______. *A Review of Activities in Federally Aided Programs of Vocational and Technical Education, Fiscal Year 1964*. Washington, D. C.: The Office, 1966.

______. *Vocational and Technical Education. A Review of Activities in Federally Aided Programs*. Washington, D. C.: U. S. Government Printing Office, 1964.

University of Wisconsin, Industrial Relations Research Institute. *Retraining and Migration as Factors in Regional Economic Development*. Madison, Wisconsin: The Institute, 1966.

Venn, Grant. *Man, Education, and Work*. Washington, D. C.: American Council on Education, 1964.

"Vocational Education: The New Approach," *Nation's Schools*, 80:2:36-43, August, 1967.

Warmbrod, J. Robert. "New Designs in Vocational and Practical Arts Education: The Central States," *American Vocational Journal*, 42:9:53-57, December, 1967.

Wenrich, Ralph C. and Robert J. Crowley. *Vocational Education as Perceived by Different Segments of the Population.* Ann Arbor, Michigan: University of Michigan, 1964.

Whitlock, James W. and Billy J. Williams. *Jobs and Training for Southern Youth*. Nashville, Tennessee: George Peabody College for Teachers, 1963.

Wiggins, Samuel P. *Southern High Schools and Jobless Youth*. Nashville, Tennessee: George Peabody College for Teachers, 1964.

Wolfbein, Seymour L. *Education and Training for Full Employment*. New York: Columbia University Press, 1967.

Worthington, Robert. "Planning and Strategies for Developing More Effective Teacher Education Programs," Institute on Critical Issues in Vocational and Technical Teacher Education in Small Colleges and Universities, A. P. Bell, editor. Center Seminar and Conference Report No. 8. Raleigh, North Carolina: Center for Occupational Education, North Carolina State University, 1967. Pp. 54-60.

EVALUATING POLICY AND POLICY-MAKING FOR OCCUPATIONAL EDUCATION

Advisory Commission on Intergovernmental Relations. 1967 Legislature Program of the Advisory Commission on Intergovernmental Relations. Washington, D. C.: The Commission, 1967.

Committee on Economic Development. Modernizing Local Government. New York: The Committee, 1966.

Conant, James Bryant. Shaping Educational Policy. New York: McGraw-Hill Book Co., 1964.

Dye, Thomas R. "Governmental Structure, Urban Environment, and Educational Policy," Midwest Journal of Political Science, 11:3:353-380, August, 1967.

Edwards, Newton. The Courts and the Public Schools. Chicago: University of Chicago Press, 1955.

Exton, Elaine. "A Time for School Boards to Study the New Federal Partnerships," American School Board Journal, 154:3:43, March, 1967.

Fenton, John H. Unofficial Makers of Public Policy. Glenview, Illinois: Scott, Foresman and Co., 1966.

Filer, Louis. The President Speaks. New York: G. P. Putnam and Sons, 1964.

Flathman, Richard E. The Public Interest. New York: John Wiley and Sons, 1966.

Garber, Lee O. and Newton Edwards. The Law Governing School Board Members and School Board Meetings. Danville, Illinois: The Interstate, 1963.

_______, and E. E. Reutter, Jr. The Yearbook of School Law 1967. Danville, Illinois: The Interstate, 1967.

Goldhammer, Keith. The School Board. New York: Center for Applied Research in Education, Inc., 1964.

Hamilton, Robert R. and E. Edmund Reutter, Jr. Legal Aspects of School Board Operation. New York: Bureau of Publications, Teachers College, Columbia University, 1958.

Hamlin, H. M. Citizens Committees in the Public Schools. Danville, Illinois: The Interstate, 1952.

_______. Citizen Participation in Local Policy-Making for Public Education. Urbana, Illinois: College of Education, University of Illinois, 1960.

_______. The Public and Its Education. Danville, Illinois: The Interstate, 1955.

_______. Public School Education in Agriculture. Policy and Policy-Making. Danville, Illinois: Interstate Printers and Publishers, 1962.

Kimbrough, Ralph B. Political Power and Educational Decision-Making. Chicago: Rand-McNally, 1964.

Kliever, D. E. The Vocational Education Act of 1963: A Case Study in Legislation. Washington, D. C.: American Vocational Association, 1965.

Lippmann, Walter. The Public Philosophy. Boston: Little, Brown, and Co., 1955.

McGivney, Joseph H. "Politics of Vocational Education." Unpublished Doctor's dissertation, University of Wisconsin, Madison, 1967.

McLure, William P. Federal Policy and the Public Schools. Washington, D. C.: American Association of School Administrators, 1967.

Masters, Nicholas A. and Lawrence K. Pettit. "Some Changing Patterns in Educational Policy-Making," Educational Administration, 2:2:81-100, Spring, 1966.

Matthews, Howard A. "Differentiate Between 'Rules' and 'Policies,'" American School Board Journal, 154:5:15-16, 42-44, May, 1967.

Miner, David W. Educational Decision-Making in Suburban Communities. Cooperative Research Project No. 2440. Evanston, Illinois: Northwestern University, 1966.

Moran, Alonzo G. "Employment and Public Policy," Public Policy and Manpower Resources. New York: Columbia University Press, 1964.

National Education Association, National School Public Relations Association. School Boards in an Era of Conflict. Washington, D. C.: The Association, 1967.

Rempson, Joe L. "Community Control of Local School Boards," Teachers College Record, 68:7:571-578, April, 1967.

Rice, Arthur H. "School Boards Reach New Heights of Importance," Nation's Schools, 80:3:10, September, 1967.

Smith, Mortimer Brewster. A Citizens' Manual for Public Schools. Boston: Little, Brown, and Co., 1965.

Snedden, David. "The Vocational Education Movement: A Critical Inventory of Policies," Objectives and Problems of Vocational Education, E. A. Lee, editor. New York: McGraw-Hill Book Co., 1938.

Stimbert, E. C. et al. "The Evolving Federal Role in Education," Official Report. Washington, D. C.: American Association of School Administrators, 1967.

Tuttle, Edward M. "School Boards and Citizens Must Work Together," School Board Leadership in America. Danville, Illinois: The Interstate, 1958.

U. S. House of Representatives, General Subcommittee on Education. Hearings on the Vocational Education Act of 1963. Washington, D. C.: U. S. Government Printing Office, 1963.

_______. Hearings on the Vocational Education Amendments of 1966. 2 vols. Washington, D. C.: U. S. Government Printing Office, 1967.

U. S. Office of Education. Re-enforcing the Role of the States in Education. OE-23050. Washington, D. C.: The Office, 1967.

Verba, Sidney. "Democratic Participation," The Annals of the American Academy of Political and Social Science, 2:53-78, September, 1967.

Warmbrod, J. R. "State Policies for Distributing State and Federal Funds for Vocational Education in Agriculture to Local School Districts." Unpublished Doctor's dissertation, College of Education, University of Illinois, Urbana, 1962.

White, Alpheus L. Characteristics of Local School Board Policy Manuals. Washington, D. C.: U. S. Government Printing Office, 1959.

_______. Local School Boards. Organization and Practices. Washington, D. C.: U. S. Government Printing Office, 1962.

EVALUATING THE OBJECTIVES OF PUBLIC OCCUPATIONAL EDUCATION

Al-Salman, Muhsin Hussain. "The Role of Prevocational Agriculture in the Junior High Schools of New York State." Unpublished Doctor's dissertation, Cornell University, Ithaca, New York, 1965.

Altman, James W. Toward a Concept of Integrated Vocational Education. Pittsburgh, Pennsylvania: American Institute for Research, 1965.

American Home Economics Association. Home Economics--New Directions. A Statement on Philosophy and Objectives. Washington, D. C.: The Association, 1959.

American Vocational Association. "Resolution Adopted December, 1966," American Vocational Journal, 42:2:49, February, 1967.

Burkel, C. E. "Education for Saleable Skills," National Association of Secondary School Principals Bulletin, 50:262-282, April, 1966.

Byram, Harold M. Philosophy and Objectives of Vocational Education in Michigan. Report of Task Force 1, Michigan Vocational Education Evaluation Project. East Lansing, Michigan: College of Education, Michigan State University, 1962.

Eisner, Elliot W. "Educational Objectives: Help or Hindrance?", School Review, 75:3:250-282, Autumn, 1967.

French, Will and Associates. Behavioral Goals of General Education in High School. New York: Russell Sage Foundation, 1957.

Hanna, Paul R. Education: An Instrument of National Goals. New York: McGraw-Hill Book Co., 1962.

Harris, Norman C. "Redoubled Efforts and Dimly Seen Goals," Phi Delta Kappan, 46:360-365, April, 1965.

Joint Committee of the U. S. Office of Education and the American Vocational Association. Objectives for Vocational and Technical Education in Agriculture. USOE Bulletin No. 4. Washington, D. C.: U. S. Government Printing Office, 1966.

Knoell, Dorothy M. Toward Educational Opportunity for All. Albany, New York: Office of the Executive Dean for Two-Year Colleges, 1966.

Krathwohl, D. R., B. S. Bloom, and B. B. Masia. A Taxonomy of Educational Objectives. New York: David McKay, 1964.

Lindvall, C. M. (ed.). Defining Educational Objectives. Pittsburgh, Pennsylvania: University of Pittsburgh Press, 1964.

National Association of Secondary School Principals, National Committee on Secondary Education. Educating for Work. Washington, D. C.: The Association, 1967.

National Education Association, Educational Policies Commission and American Association of School Administrators. The Central Purpose of American Education. Washington, D. C.: The Association, 1961.

Nelson, Margaret R. "Possible Contributions of Home Economics to the General Education of Women Enrolled in One and Two Year Post-High School Occupational Programs in Wisconsin Schools of Vocational and Adult Education." Unpublished Doctor's dissertation, University of Wisconsin, Madison, 1965.

New Jersey State Department of Education, Vocational Education Division. The World of Work: Increasing the Vocational Awareness of Fifth and Sixth Grade Pupils. Trenton, New Jersey: The Division, 1967.

University of Illinois, Department of Vocational-Technical Education. A New Look at the Vocational Purposes of Home Economics Education. Urbana, Illinois: The Department, 1963.

EVALUATING THE ORGANIZATION OF PUBLIC OCCUPATIONAL EDUCATION

Barton, Allen H. Organizational Measurement. New York: College Entrance Examination Board, 1961.

Corrazzini, Arthur J. "When Should Vocational Education Begin?", Research in Vocational and Technical Education. Madison, Wisconsin: Center for Studies in Vocational and Technical Education, University of Wisconsin, 1967, or Corrazzini, Arthur J. "When Should Vocational Education Begin?", The Journal of Human Resources, 2:1:41-69, Winter, 1967.

Draper, Dale C. "Vocational Education and the Comprehensive High School," National Association of Secondary School Principals Bulletin, 51:519: 107-120, May, 1967.

Gardner, John W. "The Administration: A Sense of What Should Be," Time, 89:21, January 20, 1967.

Harris, Norman C. Technical Education in the Junior College. Washington, D. C.: American Association of Junior Colleges, 1964.

Kuhlman, John M. "The Dilemma of the Junior College," Junior College Journal, 37:6:68-70, March, 1967.

Magnificio, L. X. "The Retarded Need Special Classes," American School Board Journal, 137:2:33, August, 1958.

Morphet, Edgar L. et al. Educational Organization and Administration. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1967.

National Education Association, Educational Policies Commission. Universal Opportunity for Education Beyond the High School. Washington, D. C.: The Association, 1964.

National Education Association, Research Division. Small High Schools 1960-61. Washington, D. C.: The Association, 1963.

Schreiber, Harry N. The Condition of American Federalism. Washington, D. C.: Senate Subcommittee on Intergovernmental Relations, 1967.

Snedden, David S. American High Schools and Vocational Schools in 1960. New York: Teachers College, Columbia University, 1931.

Southern Regional Education Board. Technical-Vocational Education and the Community College. Atlanta, Georgia: The Board, 1965.

Venn, Grant. "Vocational Education for All," National Association of Secondary School Principals Bulletin, 51:32-40, March, 1967.

Wilensky, Harold L. "Careers, Counseling, and the Curriculum," The Journal of Human Resources, 2:1:33-34, Winter, 1967.

EVALUATING THE RELATIONSHIPS OF OCCUPATIONAL AND GENERAL EDUCATION

American Association of School Administrators, Commission on Imperatives in Education. "To Prepare People for the World of Work," Imperatives in Education. Washington, D. C.: The Association, 1966.

Committee on Education, Guidance, and Work. Reorganizing Secondary Education in New York City. New York: Public Education Association, 1963.

Downing, Beverly M. "The Election of Home Economics by College-Bound Girls." Unpublished Doctor's dissertation, Columbia University, New York, 1963.

Eckerson, Louise Omwake and Hyrum M. Smith. Guidance in the Elementary School. OE-25033. Washington, D. C.: U. S. Office of Education, 1962.

Heimlich, Richard E. "The Non-Vocational Programs in Agriculture in the Public Schools in Ohio." Unpublished Master's thesis, Ohio State University, Columbus, 1964.

Keller, Franklin J. The Comprehensive High School. New York: Harper and Row, 1955.

Leavitt, F. M. and Edith Brown. Prevocational Education in the Public Schools. Boston: Houghton Mifflin, Co., 1915.

Lyon, R. "Vocational Development and the Elementary School," Elementary School Journal, 66:368-372, April, 1966.

McCracken, Thomas Cooke and Helen Etta Lamb. Occupational Information in the Elementary School. Boston: Houghton Mifflin, Co., 1923.

Morgan, Robert M. and David S. Bushnell. "Designing An Organic Curriculum." Washington, D. C.: Bureau of Research, U. S. Office of Education, 1966. (Mimeographed.), or Morgan, Robert M. and David S. Bushnell. "Designing An Organic Curriculum," National Business Education Quarterly, 39: 5-14, March, 1967.

Roeber, Edward C. "Let's Stop Trying to Separate the Vocational," American Vocational Journal, 42:7:18-20, October, 1967.

Seefeld, Kermit A. "Vocational Education in the Liberal Education Continuum," Industrial Arts and Vocational Education, 59:9:20-21, November, 1964.

Wilber, G. O. and N. C. Pendered. Industrial Arts in General Education. Scranton, Pennsylvania: International Textbook Co., 1948.

EVALUATING THE RELATIONSHIPS OF PUBLIC TO NONPUBLIC OCCUPATIONAL EDUCATION

Burt, Samuel M. "Industry Participation in Local Vocational and Technical Programs," Research in Vocational and Technical Education. Madison, Wisconsin: Center for Studies in Vocational and Technical Education, University of Wisconsin, 1967.

______. Industry and Vocational-Technical Education. New York: McGraw-Hill Book Co., 1967.

Clark, Harold F. and Harold S. Sloan. Classrooms in the Factories. New York: New York University Press, 1958.

______ ___ ______. Classrooms in the Military. New York: Bureau of Publications, Teachers College, Columbia University, 1964.

______ ___ ______. Classrooms in the Stores. Sweet Springs, Missouri: Roxbury Press, 1962.

______ ___ ______. Classrooms on Main Street: An Account of Specialty Schools in the United States. New York: Teachers College Press, Columbia University, 1966.

Gustaitis, Rara. "Private Industry's Factory Classrooms," The Reporter, 37:3:23-24, September 7, 1967.

Jordan, Thomas Francis. The Problem of Vocational Education and the Catholic Secondary School. Washington, D. C.: Catholic University of America, 1942.

Kincaid, Harry V. and Edward A. Podesta. "An Exploratory Survey of Proprietary Vocational Schools," Research in Vocational and Technical Education. Madison, Wisconsin: Center for Studies in Vocational and Technical Education, University of Wisconsin, 1967.

National Education Association, Research Division. Shared-Time Programs: An Exploratory Study. Washington, D. C.: The Association, 1964.

Swanson, J. Chester. "Educational Activities Within Business and Industry in Richmond, California." Project financed under Section 4(c), Vocational Education Act of 1963. Currently underway.

Texas Education Agency. Report to the 58th Legislature on the Study of the Operation and Administration of Private Trade and Correspondence Schools. Austin, Texas: The Agency, 1963.

CRITERIA FOR THE EVALUATION OF PUBLIC OCCUPATIONAL EDUCATION

American Society for Engineering Education. Characteristics of Excellence in Engineering Technology Education. Urbana, Illinois: The Society, 1962.

Arny, Clara B. Evaluation in Home Economics. New York: Appleton-Century-Crofts, Inc., 1953.

Cooperative Study of Secondary School Standards. Evaluative Criteria. Washington, D. C.: The Study, 1960.

Harris, Lewis E. and Clyde B. Moore. Keys to Quality. Evanston, Illinois: National School Boards Association, 1960.

Kefauver, Grayson N. and Harold C. Hand. Appraising Guidance in Secondary Schools. New York: The Macmillan Co., 1941.

Krebs, A. H. "Guiding Principles for Evaluation under the Vocational Education Act of 1963," Agricultural Education, 37:10:238-239, 253, April, 1965.

Lamar, Carl F. "Criteria for Determining the Need for Vocational Agriculture in Kentucky." Unpublished Doctor's dissertation, University of Kentucky, Lexington, 1957.

Logan, William B. "Criteria for Evaluation of a State-Wide In-School Distributive Education Program." Unpublished Doctor's dissertation, Ohio State University, Columbus, 1952.

National Education Association. Profiles of Excellence. Washington, D. C.: The Association, 1966.

_______, Research Division. *Evaluation of Classroom Teachers*. Research Report 1964-R14. Washington, D. C.: The Association, 1964.

National Study of Secondary School Evaluation. *Evaluative Criteria for Junior High Schools*. Washington, D. C.: The Study, 1964.

North Carolina State Department of Public Instruction. *Evaluative Criteria*. Raleigh, North Carolina: The Department, 1967.
(Separate publications for agricultural education, business and office education, distributive education, home economics education, industrial cooperative training, introducing vocations, trade preparatory training, and local school administrative and supervisory personnel.)

Reynolds, Harris W., Sydney M. Grobman, and Ivan C. McGee. *Evaluative Criteria for Vocational-Technical Programs*. Harrisburg, Pennsylvania: State Department of Public Instruction, 1967.

Russell, William F. *How to Judge a School*. New York: Harper and Row, 1954.

South Carolina State Commission for Technical Education. *Procedures and Criteria for the Cooperative Review of Technical Education Centers*. Columbia, South Carolina: The Commission, 1966.

University of Kentucky, Bureau of School Service. *The Measure of a Good School*. Lexington, Kentucky: The Bureau, 1964.

Wilcox, Glade. "Development of Criteria for the Evaluation of Local Programs of Trade and Industrial Education." Unpublished Doctor's dissertation, Indiana University, Bloomington, 1956.

Wyllie, Eugene Donald. "Criteria for the Evaluation of Secondary School Business Education Programs." Unpublished Doctor's dissertation, Indiana University, Bloomington, 1961.

EVALUATION PROCEDURES

Adams, Georgia (Wein) and Theodore L. Torgerson. *Measurement and Evaluation in Education, Psychology, and Guidance.* New York: Holt, Rinehart, and Winston, 1964.

Anderson, C. A. "The National Assessment of Educational Progress: Some Technical Deficiencies," *School and Society*, 95:2286:48-50, January 21, 1967.

Bradfield, James M. and Stewart H. Moredock. *Measurement and Evaluation in Education*. New York: The Macmillan Co., 1957.

Byram, Harold M. Evaluation of Local Vocational Education Programs. A Manual for Administrators, Teachers, and Citizens. East Lansing, Michigan: Bureau of Educational Research Services, College of Education, Michigan State University, 1965.

_______. "Evaluation Systems for Local Programs of Vocational and Technical Education." East Lansing: Michigan State University. Project currently underway.

Davis, R. H. "Accrediting Technical-Vocational Programs," North Central Association Quarterly, 40:272-275, Winter, 1966.

Downie, N. M. Fundamentals of Measurement. New York: Oxford University Press, 1967.

Exton, Elaine. "USOE Uses Computer-Based Models to Evaluate Education," American School Board Journal, 154:1:15-16, 43-44, January, 1967.

Gerberich, Joseph Raymond, Harry A. Greene, and Albert N. Jorgenson. Measurement and Evaluation in the Modern School. New York: D. McKay Co., 1962.

Gronlund, Norman Edward. Measurement and Evaluation in Teaching. New York: The Macmillan Co., 1965.

Hand, Harold C. "National Assessment Viewed as the Camel's Nose," Phi Delta Kappan, 47:8-12, September, 1965.

Hickok, Helen. "Ask the Junior College Parents What They Think," Junior College Journal, 35:3:24-27, November, 1964.

Kropp, Russell P. "Need for Involving Parents in Evaluation," Elementary School Journal, 57:140-144, December, 1956.

Lindeman, R. H. Educational Measurement. Glenview, Illinois: Scott, Foresman, and Co., 1967.

Lindquist, E. F. Educational Measurement. Washington, D. C.: American Council on Education, 1951.

Loomis, William G. A System for Planning, Implementing, and Evaluating Vocational Education. Salem, Oregon: State Department of Public Instruction, 1967.

March, Georgianna B. Occupational Data Requirements for Education Planning. Madison, Wisconsin: Center for Studies in Vocational and Technical Education, University of Wisconsin, 1966.

Mississippi State Department of Education. "Evaluation of Vocational-Technical Education in Mississippi, 1966." Jackson, Mississippi: The Department, 1966. (Mimeographed.)

Mood, Alex M. "National Assessment," *American Education*, 3:4:11-12, 27, April, 1967.

Morrisett, L. N. "Educational Assessment and the Junior College," *Junior College Journal*, 37:12-14, March, 1967.

National Education Association, Association for Supervision and Curriculum Development. *Evaluation as Feedback and Guide*. Washington, D. C.: The Association, 1967.

Nerden, Joseph T. "National Assessment of Vocational Education," *American Vocational Journal*, 41:18-20, March, 1966.

New York State Education Department. *Guides for the Review of Programs*. Albany, New York: The University of the State of New York, 1967.
(Series include guides for reviewing programs in agriculture, business, distributive education, home economics education, industrial arts, and trade and technical education.)

North Carolina Community College System. *Manual for Institutional Self-Study*. Raleigh, North Carolina: The System, 1965.

Ohio State University, Center for Vocational and Technical Education. "Development and Testing of a Model for Evaluation of State Programs of Vocational Education." Columbus: Ohio State University. Project currently underway.

Parody, Ovid C. "Searching for Quality in Secondary Schools," *School Life*, 47:3:24-28, December, 1964.

Phipps, Lloyd J. "How to Develop and Evaluate Pilot Programs," *American Vocational Journal*, 40:26-28, September, 1965.

_______. "How to Evaluate a Program of Agricultural Education," *Handbook on Teaching Vocational Agriculture*. Danville, Illinois: The Interstate, 1965.

Robeck, Shirley. "A Procedure for Evaluating Minnesota Diversified Vocations Clubs." Unpublished Master's study, University of Minnesota, Minneapolis, 1956.

Rudman, Herbert C. "National Educational Assessment," *Educational Administration*, 3:2:115-129, Spring, 1967.

Scriven, Michael. "The Methodology of Evaluation," *Monograph Series on Curriculum Evaluation No. 1*. Chicago: Rand-McNally, 1967.

Stanley, Julian C. *Measurement in Today's Schools*. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1964.

Sweany, H. Paul. "The National Assessment of Vocational Education," *American Vocational Journal*, 41:14-16, March, 1966.

Tennessee State Department of Education, Division of Vocational Education. Vocational Education: Evaluative Criteria and Instrument. Nashville, Tennessee: The Department, 1967.

Tuckman, Bruce W. The Development and Testing of An Evaluation Model for Vocational Pilot Programs. New Brunswick, New Jersey: Rutgers--The State University, 1967.

Tyler, Ralph W. "Assessing the Progress of Education," Phi Delta Kappan, 47:13-16, September, 1965.

University of the State of New York. A Guide for the Review of a Program in Trade and Industrial Education. Albany, New York: State Education Department, 1962.

Warrick, Glenn Dayton. "An Instrument for the Evaluation of a Secondary School Industrial Arts Program." Unpublished Doctor's dissertation, University of Maryland, College Park, 1955.

Wasserman, Paul. Measurement and Evaluation of Organizational Performance. Ithaca, New York: Graduate School of Business and Public Administration, Cornell University, 1959.

"Who Should Do the Assessing?", Phi Delta Kappan, 48:8:377, April, 1967.

Wyllie, Eugene D. An Evaluation Plan for Business Education Programs in High Schools. Monograph 109. Cincinnati, Ohio: Southwestern Publishing Co., 1963.

COST-BENEFIT STUDIES

Becker, G. S. Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education. New York: Columbia University Press, 1964.

Burkhead, Jesse, Thomas G. Fox, and John W. Holland. Input and Output in Large City Schools. Syracuse, New York: Syracuse University Press, 1967.

Burns, Michael E. "The Economic Effectiveness of Retraining the Unemployed, A Study of the Benefits and Costs of Retraining the Unemployed Based on the Experience of Workers in Connecticut." Unpublished Doctor's dissertation, Yale University, New Haven, Connecticut, 1966.

Carroll, Adger B. "Value of Human Capital Created by Investments in Technical Education." Unpublished Doctor's dissertation, North Carolina State University, Raleigh, 1966.

_______, and Loren A. Ihnen. Costs and Returns of Technical Education. Raleigh, North Carolina: Department of Economics, North Carolina State University, 1966.

Clark, Harold F. Cost and Quality in Public Education. Syracuse, New York: Syracuse University Press, 1963.

Cvancara, Joseph G. "Input-Output Relationships Among Selected Intellectual Investments in Agriculture." Unpublished Doctor's dissertation, University of Minnesota, Minneapolis, 1964.

Denison, Edward F. The Sources of Economic Growth in the United States and the Alternatives Before Us. New York: Committee on Economic Development, 1962.

Dorfman, Robert (ed.). Measuring Benefits of Government Investments. Washington, D. C.: Brookings Institution, 1965.

Exton, Elaine. "State Legislators Urged to Install Planning-Programming-Budgeting System," American School Board Journal, 154:2:13-16, February, 1967.

Hansen, William Lee. "Total and Private Rates of Return to Investment in Schooling," Journal of Political Economy, 71:128-140, April, 1963.

Hirsch, Werner G., Elbert W. Segelhorst, and Morton J. Marcus. Spillover of Educational Costs and Benefits. Los Angeles: University of California, 1964.

Hitch, Charles. Decision-Making in Defense. Berkeley: University of California Press, 1965.

Houthakker, Hendrick S. "Education and Income," Review of Economics and Statistics, 41:24-28, February, 1959.

Kastner, Howard H., Jr. "The Economic Value of Community Junior Colleges," Junior College Journal, 36:3:29-34, November, 1965.

Kershaw, J. A. and R. N. McKean. Systems Analysis and Education. Record Memorandum RM-2473-FF. Santa Monica, California: Rand Corporation.

Lassiter, Roy, Jr. The Association of Income and Educational Attainment. Gainesville: University of Florida Press, 1966.

McMillan, Claude and Richard F. Gonzales. Systems Analysis. Homewood, Illinois: R. D. Irwin, 1965.

Miller, Herman P. "Annual and Lifetime Income in Relation to Education," American Economic Review, 50:962-986, December, 1960.

Mincer, Jacob. "On-the-Job Training: Costs, Returns, and Some Implications," Journal of Political Economy, (Supplement), October, 1962.

Persons, Edgar A. and Gordon I. Swanson. Educational Restrictions to Agricultural Successes and the Relationship of Education to Income Among Farmers. Minneapolis: University of Minnesota, 1966.

Renshaw, Edward F. "Estimating the Returns to Education," Review of Economics and Statistics, 42:318-324, August, 1960.

Schultz, Theodore W. The Economic Value of Education. New York: Columbia University Press, 1963.

Somers, Gerald G. "Retraining, An Estimate of Gains and Costs," Employment Policy and the Labor Market. Berkeley: University of California Press, 1965.

Stiles, Lindley J. "Systems Approach in Education," Journal of Educational Research, 60:5:Inside Cover, January, 1967.

"Symposium on Rates of Return to Investment in Education," The Journal of Human Resources, 2:3:291-374, Summer, 1967.

"The Systems Approach Spreads to the Public Schools," Nation's Schools, 80:4:57-78, October, 1967.

Tul'chinskii, L. I. "Problems of the Profitability of Investments in Public Education," The Soviet Review, 8:1:46-54, Spring, 1967.

U. S. Bureau of the Budget. Planning-Programming-Budgeting. Bulletin 66-3, October 12, 1965.

Vaizey, J. and J. D. Chesswas. The Costing of Educational Plans. Paris: International Institute for Educational Planning, UNESCO, 1967.

Weisbrod, B. A. External Benefits of Public Education. Princeton, New Jersey: Industrial Relations Section, Department of Economics, Princeton University, 1964.

Wiseman, J. "Cost-Benefit Analysis in Education," Southern Economic Journal, 32:1:2:1-14, July, 1965.

REPORTS OF EVALUATIONS

Barlow, Melvin L. A Survey of Junior College Work Experience Programs. Los Angeles: Division of Vocational Education, University of California, 1963.

Bell, Arthur P. "Characteristics and Performance of High School Graduates and Non-Graduates in One-Year Programs in the Community College System of Institutions in North Carolina." Unpublished Doctor's dissertation, Pennsylvania State University, University Park, 1966.

Blackwell, Sara, Helen Y. Nelson, and Gertrude Jacoby. *Evaluation of a Secondary School Pilot Program in Preparation for Home Related Occupations*. Ithaca, New York: Department of Home Economics Education, Cornell University, 1966.

Blake, Duane L. "Relationship of High School Training in Vocational Agriculture to Subsequent Establishment in Farming and Participation in Organized Groups." Unpublished Doctor's dissertation, Iowa State University, Ames, 1963.

Bottoms, Gene. *Follow-up Report on 1964-65 Graduates of Georgia's Area Vocational-Technical Schools*. Atlanta: Georgia State Department of Education, 1965.

Bugher, W. K. "An Evaluation of the Superintendent's Concept of and Impact on Selected Aspects of Vocational Programs." Unpublished Doctor's dissertation, Purdue University, Lafayette, Indiana, 1960.

Cain, Glen and Gerald Somers. "Retraining the Disadvantaged Worker," *Research in Vocational and Technical Education*. Madison, Wisconsin: Center for Studies in Vocational and Technical Education, University of Wisconsin, 1967.

Campbell, Doak S. *The Florida Study of Vocational-Technical Education*. Tallahassee: Florida State Department of Education, 1965.

Campbell, J. M. *A Follow-Up Study of Former Students of Vocational Agriculture in Virginia*. Richmond: Virginia State Department of Education, 1963.

Chapman, Jane R. *Oak Glen. A Training Camp for Unemployed Youth*. Washington, D. C.: U. S. Department of Labor, 1966.

Clary, Joseph Ray. *Attitudes of Public School Personnel Toward the Introduction to Vocations Program in North Carolina*. Raleigh, North Carolina: Research Coordinating Unit in Vocational Education, School of Education, North Carolina State University, 1967.

Coe, Burr D. and J. Henry Zanzalari. "Vocational-Technical School Graduates. . .Ten Years Later," *American Vocational Journal*, 40:4:14-17, April, 1965.

Colorado Legislative Council. *Vocational Education in Colorado*. Report to the Colorado General Assembly, November, 1966.

Columbia University, Teachers College, Institute of Field Studies. Rhode Island Vocational-Technical Education Development Project. New York: Columbia University Press, 1965.

Eaddy, Kenneth M. "A Critique of the Agricultural Education Program in Florida." Unpublished Doctor's dissertation, University of Florida, Gainesville, 1965.

Edington, Everett D. and Ronald E. Hill. The Present Occupational Status of Oklahoma High School Vocational Agriculture Graduates Over the Past Five-Year Period from 1959 to 1963. Stillwater, Oklahoma: Department of Agricultural Education, Oklahoma State University, 1964.

Eggenberger, Ulrich L. "Analysis of High School Vocational Agriculture from Evaluations of Graduates in West Texas." Unpublished Doctor's dissertation, Iowa State University, Ames, 1964.

Eninger, Max U. The Process and the Product of T. and I. High School Level Vocational Education in the United States. Pittsburgh, Pennsylvania: American Institute for Research, 1966.

Espenschied, Roland F. "Major Findings of a Study of Parental Attitudes Toward Vocational Agriculture." Unpublished Doctor's dissertation, University of Illinois, Urbana, 1961.

Esplin, Wendell Luke. "An Evaluation of Trade and Industrial Education in the Publicly Supported Schools of Utah." Unpublished Doctor's dissertation, University of Utah, Salt Lake City, 1958.

Fentress, Janet. "Post-High School Activities of Girls with Four Years of Home Economics and Their Attitudes Toward Home Economics Related Occupations." Unpublished Master's thesis, Ohio State University, Columbus, 1965.

Flood, Riefford B. "Factors Associated with Success of Adult Education in Vocational Agriculture in Arkansas." Unpublished Doctor's dissertation, University of Arkansas, Fayetteville, 1964.

Florida State Department of Education. The Florida Study of Vocational-Technical Education. Tallahassee: The Department, 1965.

Foster, William Henry. "The Relationship of High School Curriculum to Industrial Employability of Students." Unpublished Doctor's dissertation, University of Arizona, Tucson, 1966.

Gadda, Hilding W. "An Evaluation of the Pre-Service Program of Teacher Education in Agriculture at South Dakota State College." Unpublished Doctor's dissertation, Michigan State University, East Lansing, 1963.

Gavales, D. "Effects of Combined Counseling and Vocational Training on Personal Adjustment," Journal of Applied Psychology, 50:18-21, February, 1966.

Georgia State Department of Education. Manual for Self-Evaluation of Georgia's Area Vocational-Technical Schools. Atlanta: The Department, 1967.

Gradoni, Ettore John. "A Study of Selected Distributive Education Programs in New York State." Unpublished Doctor's dissertation, New York University, 1957.

Green, Katherine S. "The Effectiveness of Teacher Education Programs as Perceived by Business Teachers in Arkansas." Unpublished Doctor's dissertation, University of Mississippi, University, 1964.

Hatalsan, John William. "A Follow-Up Study of San Diego Apprentice Graduates, 1947-1955." Unpublished Doctor's dissertation, University of California, Los Angeles, 1963.

Havighurst, Robert J. "Research on the School-Work Study of Prevention of Juvenile Delinquency," Role of the School in the Prevention of Juvenile Delinquency, Monograph No. 10. Washington, D. C.: Cooperative Research Program, U. S. Office of Education, 1963.

Hayles, Jasper Asberry, Jr. "Occupational Experiences of High School Graduates Who Completed Four Years of Vocational Agriculture in Louisiana." Unpublished Doctor's dissertation, Louisiana State University, Baton Rouge, 1963.

Hemp, Paul E. An Analysis and Appraisal of FFA and Vocational Agriculture Contest and Award Programs in Illinois. Urbana, Illinois: Division of Agricultural Education, College of Education, University of Illinois, 1961.

Hoos, Ida. Retraining the Work Force: An Analysis of Current Experience. Berkeley: University of California Press, 1967.

Johansen, Harold D. "An Evaluation of the Federally Reimbursed Distributive Education Programs in Iowa High Schools." Unpublished Doctor's dissertation, University of Iowa, Iowa City, 1963.

Johnson, Mildred L. "A Wage-Earning Oriented Experimental Program in High School Home Economics." Unpublished Doctor's dissertation, University of Wisconsin, Madison, 1965.

Kaufman, Jacob J. "Job Placement and Employment Experience in High School Graduates," Research in Vocational and Technical Education. Madison, Wisconsin: Center for Studies in Vocational and Technical Education, University of Wisconsin, 1967.

Kent, Linwood E. "Vocational Agriculture in Virginia Since 1917 With Recommendations for Future Development." Unpublished Doctor's dissertation, Duke University, Durham, North Carolina, 1963.

Kincaid, Harry V. "A Preliminary Evaluation of Pre-Technical Programs in Secondary Education." Menlo Park, California: Stanford Research Institute. Currently underway.

Krebs, Alfred H. College Success of Students Enrolled in the College of Agriculture. Urbana, Illinois: Division of Agricultural Education, College of Education, University of Illinois, 1961.

Lamberth, Edwin E. "Principals Evaluate Tennessee Vo-Ag Program," Agricultural Education Magazine, 36:274-275, June, 1964.

Lester, Herschel T., Jr. "How Young Men in Missouri Communities Serviced by Vocational Agriculture Start and Progress in Farming." Unpublished Doctor's dissertation, University of Missouri, Columbia, 1960.

Linson, Marvin G. "A Guide for Self-Evaluation of State Supervisory Programs in Vocational Education in Agriculture." Unpublished Doctor's dissertation, Ohio State University, Columbus, 1964.

Lowe, Phyllis K. "Student Evaluation of Home Economics Programs at the Secondary Level When Courses are General and Specialized." Lafayette, Indiana: Department of Education, Purdue University, 1962. (Mimeographed.)

McCormick, Louise W., M. Gene Shelden, and Robert K. White. "Planning and Evaluating a Clothing Course for Gifted Ninth Grade Students," Journal of Home Economics, 58:453-456, June, 1966.

McKitrick, Max O. "An Evaluation of Faculties and Facilities for Business Teacher Education in Ohio Colleges and Universities." Unpublished Doctor's dissertation, Colorado State College, Greeley, 1960.

Merritt, Lindsey A. "A Study of the Progress of the High School Cooperative Distributive Education Program at Hillsdale High School, Durham, North Carolina." Unpublished Master's thesis, North Carolina College, Durham, 1964.

Michigan State University, College of Education. Vocational Education in Michigan. Final Report of the Michigan Evaluation Project. East Lansing, Michigan: The University, 1963.

Millet, Garland J. "Achievement of Male High School Dropouts and Graduates in Alabama Vocational Schools." Unpublished Doctor's dissertation, George Peabody College for Teachers, Nashville, Tennessee, 1965.

Mock, Perry O. "An Evaluation Study of the Federally Reimbursable Part-Time Cooperative Distributive Education Programs in the Public Secondary Schools of Arkansas." Unpublished Doctor's dissertation, University of Arkansas, Fayetteville, 1965.

Modesto Junior College, Adult Division. Continuing Employment Through Training. Modesto, California: The College, 1966.

______. Depleting Welfare Rolls. A Study of Welfare Recipients. Modesto, California: The College, 1967.

Moore, Dorothy L. A Preliminary Draft of a Study of Vocational Education in Hawaii Public Secondary and Vocational Schools. 3 parts. Honolulu, Hawaii: Legislative Reference Bureau, University of Hawaii, 1966.

Myers, Charles Everett. Effectiveness of Vocational Education in Agriculture. Bulletin 82, Agricultural Series No. 13. Washington, D. C.: Federal Board for Vocational Education, 1923.

Nielsen, Duane M. "Relationship of High School Vocational Agriculture and Size of Home Farm to Establishment of Graduates in Farming." Unpublished Doctor's dissertation, Iowa State University, Ames, 1958.

North Atlantic Region. Follow-Up Studies of Graduates, Trade and Industrial Programs in Public Vocational and Technical High Schools. 3 reports. Washington, D. C.: U. S. Office of Education, 1961, 1962, 1963.

O'Connor, Thomas J. Follow-Up Studies in Junior Colleges. Washington, D. C.: American Association of Junior Colleges, 1966.

Odell, William R. Educational Survey Report for the Philadelphia Board of Public Education. Philadelphia, Pennsylvania: The Board, 1965.

Ohio State University, School Survey Service. Improving Opportunities for Vocational and Technical Education: Stark County, Ohio. Columbus, Ohio: The Service, 1964.

______. Public Vocational-Technical Education in Oregon. Columbus, Ohio: The Service, 1958.

______. The Racine Vocational, Technical, and Adult School. Racine, Wisconsin. Columbus, Ohio: The Service, 1964.

______. Vocational Education in the Public Schools of South Carolina. Columbus, Ohio: The Service, 1963.

______. Vocational-Technical Education in the Public Schools of New Castle County, Delaware. Columbus, Ohio: The Service, 1964.

O'Kelley, G. L., Jr. and H. T. Lester, Jr. A Comparison of Farmers Who Studied Vocational Agriculture in High School and Those Who Did Not in Terms of Their Tendencies to Adopt Improved Farming Practices. Athens, Georgia: Department of Agricultural Education, University of Georgia, 1965.

Panel of Consultants on Vocational Education. Education for a Changing World of Work. Washington, D. C.: U. S. Government Printing Office, 1963.

Pernice, Laura M. "Beliefs of Selected Laywomen Concerning the Teaching of Home Economics to Junior and Senior High School Pupils." Unpublished Master's thesis, Oregon State University, Corvallis, 1961.

Pittsburgh Board of Education. Vocational Education in the Pittsburgh Public Schools. Pittsburgh, Pennsylvania: The Board, 1963.

Platt, William J. "Education-Rich Problems and Poor Markets," Management Science, 8:4:411, July, 1962.

Powell, Karl F. "An Evaluation of Advisory Committees of the Distributive Education Program of Kansas." Unpublished Master's thesis, Kansas State Teachers College, Emporia, 1965.

Ramsey, Veva. "The Benefits and Problems in the Use of Advisory Groups in Vocational Home Economics in Illinois." Unpublished Master's thesis, Southern Illinois University, Carbondale, 1962.

Roberts, Roy W. Evaluation of the Effectiveness of Instruction in Agricultural Mechanics for Vocational Agriculture Students in Arkansas Who Enter Non-Farming Occupations. Fayetteville, Arkansas: Department of Vocational Teacher Education, University of Arkansas, 1965.

Robertson, Leonard. "An Exploratory Study of the Effects of the Cooperative Education Program in Beginning Occupations on Selected Employment Factors." Unpublished Doctor's dissertation, Colorado State College, Greeley, 1965.

Roper, Elmo. "Learning is Total," Saturday Review, 41:21:20, May 24, 1958.

Rountree, W. Daniel. " An Analysis of Distributive Education Students' Attitudes Toward Their Classroom Instruction, Their Work Experience, and Careers in Distribution." Unpublished Master's thesis, University of North Carolina at Greensboro, 1965.

Ryley, Frederick. Report on the Manpower Development and Training Program at Mattoon, Illinois. Springfield, Illinois: State Board of Vocational Education and Rehabilitation, 1966.

Sanborn, Marshall P. "A Comparison of Four High School Guidance Programs in Terms of Four Criteria," Personnel and Guidance Journal, 43:293-298, November, 1964.

Schaefer, Carl J. Pennsylvania's Trade and Industrial Education Image. University Park: Pennsylvania State University, 1962.

Scoggins, Will. Labor in Learning: Public School Treatment of the World of Work. Los Angeles: Institute of Human Relations, University of California, 1966.

Seibel, Richard R. "An Evaluative Study of the Distributive Education Programs in the Secondary Schools of the Suburbs of Chicago." Unpublished Master's study, Kansas Teachers College, Emporia, 1961.

Shotwell, H. D. and James A. Bikkie. "Follow-Up of Cooperative Business Education Graduates, State of Kansas, School Years Ending 1955, 1958, and 1961." Topeka: Kansas State Board of Vocational Education, 1962. (Mimeographed.)

Smith, David A. "An Evaluation of Work Experience in Distributive Education in the Northern 21 Counties of Illinois." Unpublished Master's study, Northern Illinois University, DeKalb, 1962.

Snowden, O. L. A Study of the Effectiveness of Vocational Education in Agriculture in Long-Tenure Departments in Mississippi. State College, Mississippi: Department of Agricultural Education, Mississippi State University, 1959.

Spence, W. P. "Status of Industrial Arts Education," Industrial Arts and Vocational Education, 55:18, November, 1966.

State of New Jersey, Department of Education. Follow-Up Study of Graduates of Vocational-Technical Education Programs, Class of 1964. Trenton, New Jersey: The Department, 1964.

"The Status of Industrial Education," American School Board Journal, Special Feature, 146:32-41, March, 1963.

Torrence, Preston E. "The Tuskegee Experiment in Adult Training," Adult Leadership, 15:3:83-84, 96, September, 1966.

U. S. Office of Education, Office of Program Planning and Evaluation. An Analysis of Vocational Education in Our Secondary Schools. Washington, D. C.: The Office, 1967.

University of Georgia, Department of Agricultural Education. A Comparison of Farmers Who Studied Vocational Agriculture in High School and Those Who Did Not in Terms of Their Tendencies to Adopt Improved Farming Practices. Athens, Georgia: The Department, 1965.

Virginia State Department of Education. A Follow-Up Study of Students of Vocational Agriculture in Virginia. Richmond: The Department, 1963.

Vogley, Jane J. "A Comparative Study of Distributive Education and Non-Distributive Education High School Graduates." Unpublished Doctor's dissertation, University of Virginia, Charlottesville, 1958.

Webb, Earl S. Educational and Employment Status of 1960 Graduates in Vocational Agriculture with Implications for Vocational Guidance. Columbia, Missouri: Department of Agricultural Education, University of Missouri, 1961.

Weeks, Christopher. *Job Corps: Dollars and Dropouts*. Boston: Little, Brown, and Co., 1967.

Wenrich, Ralph C. *A Study to Determine More Effective Ways of Using State and Federal Vocational Education Funds in the Further Development of Programs Operated by Local School Districts*. Ann Arbor, Michigan: Office of Research Administration, University of Michigan, 1962.

Wheeless, Lovena I. "An Evaluation of Business Education Programs of Public Secondary Schools in Northwest Arkansas." Unpublished Doctor's dissertation, University of Arkansas, Fayetteville, 1964.

Williams, Ferne D. "A Study of the Effectiveness of the Office Training Program at Flint Community Junior College as Related to the Employment Needs of Students." Unpublished Doctor's disseration, Michigan State University, East Lansing, 1960.

Wiising, Weston C. "An Appraisal of Business Education in the Urban and Rural Public High Schools of the State of Washington." Unpublished Doctor's dissertation, University of Washington, Seattle, 1959.

Wolfe, Dael L. and J. G. Smith. "The Occupational Value of Education for Superior High School Graduates," *Journal of Higher Education*, 27:201-213, April, 1956.

Wynder, William Richard. "An Evaluation of Vocational Education in Agriculture in Delaware." Unpublished Doctor's dissertation, New York University, 1960.

COLLECTED BIBLIOGRAPHIES

Albert, Ethel M. and Clyde Kluckhohn. *A Selected Bibliography on Values, Ethics, and Esthetics in the Behavioral Sciences and Philosophy, 1920-1958*. Glencoe, Illinois: Free Press, 1959.

Ohio State University, Center for Vocational and Technical Education. *Agricultural Education*. Columbus: The Center, 1967.

_______. *Business and Office Occupations Education*. Columbus: The Center, 1967.

_______. *Distributive Education*. Columbus: The Center, 1967.

_______. *Home Economics Education*. Columbus: The Center, 1967.

_______. *Industrial Arts*. Columbus: The Center, 1967.

_______. *Reviews and Syntheses of Research in Vocational and Technical Education*. Columbus: The Center, 1967.

______. Technical Education. Columbus: The Center, 1967.

______. Trade and Industrial Education. Columbus: The Center, 1967.

Rarig, E. W. The Community Junior College. An Annotated Bibliography. New York: Teachers College Press, Columbia University, 1967.

Senge, Alice. Vocational Education: An Annotated Bibliography of Selected References, 1917-1965. Washington, D. C.: U. S. Office of Education, 1966.

Sutton, Elizabeth W. Analysis of Research on Selected Aspects of Evaluation in Adult Education. Washington, D. C.: Cooperative Research Program, U. S. Office of Education, 1966.

U. S. Department of Labor, Manpower Administration. Manpower Research Projects Sponsored by the U. S. Department of Labor, Manpower Administration. Washington, D. C.: The Department, 1966.

BIBLIOGRAPHY

Adams, Georgia (Wein) and Theodore L. Torgerson. *Measurement and Evaluation in Education, Psychology, and Guidance*. New York: Holt, Rinehart, and Winston, 1964.

Advisory Commission on Intergovernmental Relations. *Metropolitan Social and Economic Disparities: Implications for Intergovernmental Relations in Central Cities and Suburbs*. Washington, D. C.: The Commission, 1965.

_______. *1967 Legislature Program of the Advisory Commission on Intergovernmental Relations*. Washington, D. C.: The Commission, 1967.

Albert, Ethel M. and Clyde Kluckhohn. *A Selected Bibliography on Values, Ethics, and Esthetics in the Behavioral Sciences and Philosophy, 1920-1958.* Glencoe, Illinois: Free Press, 1959.

Albrecht, Milton C. "Does Literature Reflect Common Values?", *American Sociological Review*, 21:722-729, December 18, 1956.

Al-Salman, Muhsin Hussain. "The Role of Prevocational Agriculture in the Junior High Schools of New York State." Unpublished Doctor's dissertation, Cornell University, Ithaca, New York, 1965.

Altman, James W. *Toward a Concept of Integrated Vocational Education*. Pittsburg, Pennsylvania: American Institute for Research, 1965.

American Association of School Administrators, Commission on Imperatives in Education. "To Prepare People for the World of Work," *Imperatives in Education*. Washington, D. C.: The Association, 1966.

American Home Economics Association. *Home Economics--New Directions. A Statement on Philosophy and Objectives*. Washington, D. C.: The Association, 1959.

American Society for Engineering Education. *Characteristics of Excellence in Engineering Technology Education*. Urbana, Illinois: The Society, 1962.

American Vocational Association. "Resolution adopted December, 1966," *American Vocational Journal*, 42:2:49, February, 1967.

Anderson, C. A. "The National Assessment of Educational Progress: Some Technical Deficiencies," *School and Society*. 95:2286:48-50, January 21, 1967.

Anderson, C. Arnold. "The Adaptation of Education to a Mobile Society," *The Journal of Human Resources*, 2:2:221-253, Spring, 1967.

Arny, Clara B. Evaluation in Home Economics. New York: Appleton-Century-Crofts, Inc., 1953.

Barlow, Melvin L. *A Survey of Junior College Work Experience Programs.* Los Angeles: Division of Vocational Education, University of California, 1963.

Barrett, Donald N. (ed.). *Values in America*. Notre Dame, Indiana: Notre Dame University, 1961.

Barry, Ruth and Beverly Wolf. *An Epitaph for Vocational Guidance*. New York: Bureau of Publications, Teachers College, Columbia University, 1962.

Barton, Allen H. *Organizational Measurement*. New York: College Entrance Examination Board, 1961.

Bauer, Raymond A. (ed.). *Social Indicators*. Cambridge, Massachusetts: MIT Press, 1966.

Beard, H. G. (ed.). *National Vocational-Technical Education Seminar on Occupational Mobility and Migration*. Center Seminar and Conference Report No. 2. Raleigh, North Carolina: Center for Occupational Education, North Carolina State University, 1966.

Becker, G. S. *Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education*. New York: Columbia University Press, 1964.

Bell, Arthur P. "Characteristics and Performance of High School Graduates and Non-Graduates in One-Year Programs in the Community College System of Institutions in North Carolina." Unpublished Doctor's dissertation, Pennsylvania State University, University Park, 1966.

Benson, Charles Scott. *The School and the Economic System*. Chicago: Science Research Associates, 1966.

Bernstein, Abraham. *The Education of Urban Populations*. New York: Random House, 1967.

Blackwell, Sara, Helen Y. Nelson, and Gertrude Jacoby. *Evaluation of a Secondary School Pilot Program in Preparation for Home Related Occupations*. Ithaca, New York: Department of Home Economics Education, Cornell University, 1966.

Blake, Duane L. "Relationship of High School Training in Vocational Agriculture to Subsequent Establishment in Farming and Participation in Organized Groups." Unpublished Doctor's dissertation, Iowa State University, Ames, 1963.

Blakeley, Robert J. "Human Values for Human Beings," Adult Leadership, 15:8:265-266, 284-286, 304, February, 1967.

______. "The Thistle," Adult Leadership, 14:10:322-324, 348-349, April, 1966.

Blau, Peter M. and Otis Dudley. The American Occupational Structure. New York: John Wiley and Sons, 1967.

Blaug, Mark. Economics of Education. New York: Pergamon Press, 1966.

Bobbitt, Franklin. The Curriculum of Modern Education. New York: McGraw-Hill Book Co., 1941.

Bottoms, Gene. Follow-up Report on 1964-65 Graduates of Georgia's Area Vocational-Technical Schools. Atlanta: Georgia State Department of Education, 1965.

Bowen, William G. and Frederick Harbison. (eds.). Unemployment in a Prosperous Economy. Report of Princeton University Manpower Symposium. Princeton, New Jersey: Princeton University, 1965.

Boykin, Leander L. "What is Evaluation?", Journal of Educational Research, 51:529-534, March, 1958.

Bradfield, James M. and H. Stewart Moredock. Measurement and Evaluation in Education. New York: The Macmillan Co., 1957.

Brickman, William W. and Stanley Lehrer (eds.). Automation, Education and Human Values. New York: School and Society, 1966.

Broughton, William H. "Millions for What?", Journal of Industrial Arts Education, 26:2:11-12, November, 1966.

Bugher, W. K. "An Evaluation of the Superintendent's Concept of and Impact on Selected Aspects of Vocational Programs." Unpublished Doctor's dissertation, Purdue University, Lafayette, Indiana, 1960.

Burke, John G. (ed.). The New Technology and Human Values. Belmont, California: Wadsworth Publishing Co., Inc., 1966.

Burkel, C. E. "Education for Saleable Skills," National Association of Secondary School Principals Bulletin, 50:262-282, April, 1966.

Burkhead, Jesse, Thomas G. Fox, and John W. Holland. Input and Output in Large City Schools. Syracuse, New York: Syracuse University Press, 1967.

Burns, Michael E. "The Economic Effectiveness of Retraining the Unemployed, A Study of the Benefits and Costs of Retraining the Unemployed Based on the Experience of Workers in Connecticut." Unpublished Doctor's dissertation, Yale University, New Haven, Connecticut, 1966.

Burt, Samuel M. "Industry Participation in Local Vocational and Technical Programs," Research in Vocational and Technical Education. Madison, Wisconsin: Center for Studies in Vocational and Technical Education, University of Wisconsin, 1967.

_______. Industry and Vocational-Technical Education. New York: McGraw-Hill Book Co., 1967.

Butz, O. (ed.). To Make A Difference--A Student Looks at America: Its Values, Its Society, and Its System of Education. New York: Harper and Row, 1967.

Byram, Harold M. Evaluation of Local Vocational Education Programs. A Manual for Administrators, Teachers, and Citizens. East Lansing, Michigan: Bureau of Educational Research Services, College of Education, Michigan State University, 1965.

_______. "Evaluation Systems for Local Programs of Vocational and Technical Education." East Lansing: Michigan State University. Project Currently Underway.

_______. Philosophy and Objectives of Vocational Education in Michigan, Report of Task Force 1, Michigan Vocational Education Evaluation Project. East Lansing, Michigan: College of Education, Michigan State University, 1962.

Cain, Glen G. Married Women in the Labor Force: An Economic Analysis. Chicago: University of Chicago Press, 1966.

Cain, Glen and Gerald Somers. "Retraining the Disadvantaged Worker," Research in Vocational and Technical Education. Madison, Wisconsin: Center for Studies in Vocational and Technical Education, University of Wisconsin, 1967.

Campbell, Doak S. The Florida Study of Vocational-Technical Education. Tallahassee: Florida State Department of Education, 1965.

Campbell, J. M. A Follow-Up Study of Former Students of Vocational Agriculture in Virginia. Richmond: Virginia State Department of Education, 1963.

Campbell, Ronald F. "Federal Impact on Board's Decisions," American School Board Journal, 154:3:38-42, March, 1967.

Carroll, Adger B. "Value of Human Capital Created by Investments in Technical Education." Unpublished Doctor's dissertation, North Carolina State University, Raleigh, 1966.

_______, and Loren A. Ihnen. Costs and Returns of Technical Education. Raleigh, North Carolina: Department of Economics, North Carolina State University, 1966.

Chansky, Norman M. Untapped Good. The Rehabilitation of School Dropouts. Springfield, Illinois: Charles C. Thomas, 1966.

Chapman, Jane R. Oak Glen. A Training Camp for Unemployed Youth. Washington, D. C.: U. S. Department of Labor, 1966.

Chase, Edward T. "Learning to be Unemployable," Harper's Magazine, 226: 33-40, April, 1963.

Clark, Harold F. Cost and Quality in Public Education. Syracuse, New York: Syracuse University Press, 1963.

_______, and Harold S. Sloan. Classrooms in the Factories. New York: New York University Press, 1958.

_______ ___ _______. Classrooms in the Military. New York: Bureau of Publications, Teachers College, Columbia University, 1964.

_______ ___ _______. Classrooms in the Stores. Sweet Springs, Missouri: Roxbury Press, 1962.

_______ ___ _______. Classrooms on Main Street: An Account of Specialty Schools in the United States. New York: Teachers College Press, Columbia University, 1966.

Clary, Joseph Ray. Attitudes of Public School Personnel Toward the Introduction to Vocations Program in North Carolina. Raleigh, North Carolina: Research Coordinating Unit in Vocational Education, School of Education, North Carolina State University, 1967.

Coe, Burr D. and J. Henry Zanzalari. "Vocational-Technical School Graduates...Ten Years Later," American Vocational Journal, 40:4:14-17, April, 1965.

Cohen, Eli E. and Louise Kapp (eds.). Manpower Policies for Youth. New York: Columbia University Press, 1966.

Cohen, Wilbur J. "Education and Learning," The Annals of the American Academy of Political and Social Science, 373:79-101, September, 1967.

Coleman, J. S. et al. Equality of Educational Opportunity. Washington, D. C.: U. S. Government Printing Office, 1966.

Colorado Legislative Council. Vocational Education in Colorado. Report to the Colorado General Assembly. November, 1966.

Columbia University, Teachers College, Institute of Field Studies. Rhode Island Vocational-Technical Education Development Project. New York: Columbia University Press, 1965.

Committee on Education, Guidance, and Work. Reorganizing Secondary Education in New York City. New York: Public Education Association, 1963.

Committee on Economic Development. Modernizing Local Government. New York: The Committee, 1966.

______. Raising Low Incomes Through Improved Education. New York: The Committee, 1965.

Conant, James Bryant. Shaping Educational Policy. New York: McGraw-Hill Book Co., 1964.

Cooperative Study of Secondary School Standards. Evaluative Criteria. Washington, D. C.: The Study, 1960.

Corrazzini, Arthur J. "When Should Vocational Education Begin?" Research in Vocational and Technical Education. Madison, Wisconsin: Center for Studies in Vocational and Technical Education, University of Wisconsin, 1967 or Corrazzini, Arthur J. "When Should Vocational Education Begin?", The Journal of Human Resources, 2:1:41-69, Winter, 1967.

Cornuelle, Richard C. Reclaiming the American Dream. New York: Random House, 1965.

Counts, George S. "American Civilization--Our Moral Commitments," Education and the Promise of America. New York: The Macmillan Co., 1945.

Cowhig, James D. and Calvin L. Beale. "Vocational Agriculture Enrollment and Farm Employment Opportunities," Southwestern Social Science Quarterly, 47:4:413-423, March, 1967.

Čvancara, Joseph G. "Input-Output Relationships Among Selected Intellectual Investments in Agriculture." Unpublished Doctor's dissertation, University of Minnesota, Minneapolis, 1964.

Dahlke, H. Otto. Values in Culture and Classroom. New York: Harper and Row, 1958.

David, Henry. Manpower Policies for a Democratic Society. New York: Columbia University Press, 1965.

Davis, Russell C. Planning Human Resource Development. Chicago: Rand McNally and Co., 1967.

Davis, R. H. "Accrediting Technical-Vocational Programs," North Central Association Quarterly, 40:272-275, Winter, 1966.

Day, Glen R. and Henry M. Reitan. "Geographic Mobility: A Needed Dimension," Vocational Guidance Quarterly, 15:4:289-293, June, 1967.

Denison, Edward F. The Sources of Economic Growth in the United States and Alternatives Before Us. New York: Committee on Economic Development, 1962.

Dorfman, Robert (ed.). Measuring Benefits of Government Investments. Washington, D. C.: Brookings Institution, 1965.

Downie, N. M. Fundamentals of Measurement. New York: Oxford University Press, 1967.

Downing, Beverly M. "The Election of Home Economics by College-Bound Girls." Unpublished Doctor's dissertation, Columbia University, New York, 1963.

Draper, Dale C. "Vocational Education and the Comprehensive High School," National Association of Secondary School Principals Bulletin, 51:519: 107-120, May, 1967.

Dye, Thomas R. "Governmental Structure, Urban Environment, and Educational Policy," Midwest Journal of Political Science, 11:3:353-380, August, 1967.

Eaddy, Kenneth M. "A Critique of the Agricultural Education Program in Florida." Unpublished Doctor's dissertation, University of Florida, Gainsville, 1965.

Ebenstein, William, Herman C. Pritchett, Henry A. Turner, and Dean Mann. American Democracy in World Perspective. New York: Harper and Row, 1967.

Eckerson, Louise Omwake and Hyrum M. Smith. Guidance in the Elementary School. OE-25033. Washington, D. C.: U. S. Office of Education, 1962.

Edington, Everett D. and Ronald E. Hill. The Present Occupational Status of Oklahoma High School Vocational Agriculture Graduates Over the Past Five-Year Period from 1959 to 1963. Stillwater, Oklahoma: Department of Agricultural Education, Oklahoma State University, 1964.

Edwards, Newton. The Courts and the Public Schools. Chicago: University of Chicago Press, 1955.

Eggenberger, Ulrich L. "Analysis of High School Vocational Agriculture from Evaluations of Graduates in West Texas." Unpublished Doctor's dissertation, Iowa State University, Ames, 1964.

Eisner, Elliot W. "Educational Objectives: Help or Hindrance?", School Review, 75:3:250-282, Autumn, 1967.

Eninger, Max U. The Process and the Product of T. and I. High School Level Vocational Education in the United States. Pittsburgh, Pennsylvania: American Institute for Research, 1966.

Espenschied, Roland F. "Major Findings of a Study of Parental Attitudes Toward Vocational Agriculture." Unpublished Doctor's dissertation, University of Illinois, Urbana, 1961.

Esplin, Wendell Luke. "An Evaluation of Trade and Industrial Education in the Publicly Supported Schools of Utah." Unpublished Doctor's dissertation, University of Utah, Salt Lake City, 1958.

Exton, Elaine. "State Legislators Urged to Install Planning-Programming-Budgeting System," American School Board Journal, 154:2:13-16, February, 1967.

_______. "A Time for School Boards to Study the New Federal Partnerships," American School Board Journal, 154:3:43, March, 1967.

_______. "USOE Uses Computer-Based Models to Evaluate Education," American School Board Journal, 154:1:15-16, 43-44, January, 1967.

Face, W. L., E. R. F. Flug, and R. S. Swanson. "A Conceptual Approach to the Study of American Industry," American Vocational Journal, 40:3:15-17, March, 1965.

Faucett, Claude W. "Responsibilities of Nonpublic Agencies for Conducting Vocational Education," Vocational Education, Melvin L. Barlow, editor. Sixty-fourth Yearbook of the National Society for the Study of Education, Part I. Chicago: The University of Chicago Press, 1965.

Fenton, John H. Unofficial Makers of Public Policy. Glenview, Illinois: Scott, Foresman and Co., 1966.

Fentress, Janet. "Post-High School Activities of Girls with Four Years of Home Economics and Their Attitudes Toward Home Economics Related Occupations." Unpublished Master's thesis, Ohio State University, Columbus, 1965.

Filer, Louis. The President Speaks. New York: G. P. Putnam and Sons, 1964.

Final Report of the Summer Study on Occupational, Vocational and Technical Education. Cambridge, Massachusetts: Institute of Technology, 1965.

Flathman, Richard E. The Public Interest. New York: John Wiley and Sons, 1966.

Flood, Riefford B. "Factors Associated with Success of Adult Education in Vocational Agriculture in Arkansas." Unpublished Doctor's dissertation. University of Arkansas, Fayetteville, 1964.

Florida State Department of Education. The Florida Study of Vocational-Technical Education. Tallahassee: The Department, 1965.

Foster, William Henry. "The Relationship of High School Curriculum to Industrial Employability of Students." Unpublished Doctor's dissertation, University of Arizona, Tucson, 1966.

French, Will and Associates. Behavioral Goals of General Education in High School. New York: Russell Sage Foundation, 1957.

Gadda, Hilding W. "An Evaluation of the Pre-Service Program of Teacher Education in Agriculture at South Dakota State College." Unpublished Doctor's dissertation, Michigan State University, East Lansing, 1963.

Galbraith, John Kenneth. The New Industrial State. Boston: Houghton Mifflin and Co., 1967.

Garber, Lee O. and Newton Edwards. The Law Governing School Board Members and School Board Meetings. Danville, Illinois: The Interstate, 1963.

_______, and E. E. Reutter, Jr. The Yearbook of School Law 1967. Danville, Illinois: The Interstate, 1967.

Gardner, John W. "The Administration: A Sense of What Should Be," Time, 89:21, January 20, 1967.

_______. Excellence. New York: Harper and Row, 1961.

_______. "National Goals in Education," Goals for Americans. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1960.

Gavales, D. "Effects of Combined Counseling and Vocational Training on Personal Adjustment," Journal of Applied Psychology, 50:18-21, February, 1966.

George Peabody College for Teachers, Division of Surveys and Field Services. High Schools in the South: A Fact Book. Nashville, Tennessee: The Division, 1966.

Georgia State Department of Education. Manual for Self-Evaluation of Georgia's Area Vocational-Technical Schools. Atlanta: The Department, 1967.

Gerberich, Joseph Raymond, Harry A. Greene, and Albert N. Jorgenson. Measurement and Evaluation in the Modern School. New York: D. McKay Co., 1962.

Ginzberg, Eli. The Development of Human Resources. New York: McGraw-Hill Book Co., 1966.

Goldhammer, Keith. The School Board. New York: Center for Applied Research in Education, Inc., 1964.

Gradoni, Ettore John. "A Study of Selected Distributive Education Programs in New York State." Unpublished Doctor's dissertation, New York University, 1957.

Green, Katherine S. "The Effectiveness of Teacher Education Programs as Perceived by Business Teachers in Arkansas." Unpublished Doctor's dissertation, University of Mississippi, University, 1964.

Greenstein, Fred I. "New Light on Changing American Values: A Forgotten Body of Survey Data," Social Forces, 42:441-450, May, 1964.

Gronlund, Norman Edward. Measurement and Evaluation in Teaching. New York: The Macmillian Co., 1965.

Gustaitis, Rara. "Private Industry's Factory Classrooms," The Reporter, 37: 3:23-24, September 7, 1967.

Hamilton, Robert R. and E. Edmund Reutter, Jr. Legal Aspects of School Board Operation. New York: Bureau of Publications, Teachers College, Columbia University, 1958.

Hamlin, H. M. Citizens Committees in the Public Schools. Danville, Illinois: The Interstate, 1952.

_______. Citizen Participation in Local Policy-Making for Public Education. Urbana, Illinois: College of Education, University of Illinois, 1960.

_______. "New Designs in Vocational and Practical Arts Education: The South," American Vocational Journal, 39:9:12-15, December, 1964.

_______. The Public and Its Education. Danville, Illinois: The Interstate, 1955.

_______. Public School Education in Agriculture. Policy and Policy-Making. Danville, Illinois: Interstate Printers and Publishers, 1962.

_______. "What is Evaluation?", American Vocational Journal, 42:5:19-22, May, 1967.

_______, and Allen Lee. "New Designs in Vocational and Practical Arts Education: The West," American Vocational Journal, 40:8:20-23, November, 1965.

Hand, Harold C. "National Assessment Viewed as the Camel's Nose," Phi Delta Kappan, 47:8-12, September, 1965.

Hanna, Paul R. Education: An Instrument of National Goals. New York: McGraw-Hill Book Co., 1962.

Hansen, William Lee. "Total and Private Rates of Return to Investment in Schooling," Journal of Political Economy, 71:128-140, April, 1963.

Harbison, Frederick and Charles A. Myers. Education, Manpower, and Economic Growth. New York: McGraw-Hill Book Co., 1964.

Harris, Lewis E. and Clyde B. Moore. Keys to Quality. Evanston, Illinois: National School Boards Association, 1960.

Harris, Norman C. Education and Training for the World of Work. Kalamazoo, Michigan: The W. E. Upjohn Institute for Employment Research, 1963.

_______. "Redoubled Efforts and Dimly Seen Goals," Phi Delta Kappan, 46: 360-365, April, 1965.

_______. Technical Education in the Junior College. Washington, D. C.: American Association of Junior Colleges, 1964.

Hatalsan, John William. "A Follow-Up Study of San Diego Apprentice Graduates, 1947-1955." Unpublished Doctor's dissertation, University of California, Los Angeles, 1963.

Havighurst, Robert J. "Research on the School-Work Study of Prevention of Juvenile Delinquency," Role of the School in the Prevention of Juvenile Delinquency, Monograph No. 10. Washington, D. C.: Cooperative Research Program, U. S. Office of Education, 1963.

Hayles, Jasper Asberry, Jr. "Occupational Experiences of High School Graduates Who Completed Four Years of Vocational Agriculture in Louisiana." Unpublished Doctor's dissertation, Louisiana State University, Baton Rouge, 1963.

Heimlich, Richard E. "The Non-Vocational Programs in Agriculture in the Public Schools in Ohio." Unpublished Master's thesis, Ohio State University, Columbus, 1964.

Heller, Walter W. New Dimensions of Political Economy. Cambridge, Massachusetts: Harvard University Press, 1966.

Hemp, Paul E. An Analysis and Appraisal of FFA and Vocational Agriculture Contest and Award Programs in Illinois. Urbana, Illinois: Division of Agricultural Education, College of Education, University of Illinois, 1961.

Herman, Melvin and Stanley Sadofsky. Youth-Work Programs: Problems of Planning and Operation. New York: New York University, 1966.

Hickok, Helen. "Ask the Junior College Parents What They Think," Junior College Journal, 35:3:24-27, November, 1964.

Hirsch, Werner G., Elbert W. Segelhorst, and Morton J. Marcus. Spillover of Educational Costs and Benefits. Los Angeles: University of California, 1964.

Hitch, Charles. Decision-Making in Defense. Berkeley: University of California Press, 1965.

Hodgkinson, Harold L. Education, Interaction, and Social Change. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1967.

Hogan, Elizabeth P. and Robert L. Thorndike. "Evaluation," Encyclopedia of Educational Research, Chester W. Harris, editor. Third edition. New York: The Macmillian Co., 1960.

Hoos, Ida. Retraining the Work Force: An Analysis of Current Experience. Berkeley: University of California Press, 1967.

Houle, Cyril O. The Uncommon School. Syracuse, New York: Syracuse University, 1966.

Houthakker, Hendrick S. "Education and Income," Review of Economics and Statistics, 41:24-28, February, 1959.

Howe, Harold, II. "The Neglected Majority," Bulletin of the National Association of Secondary School Principals, 51:319:41-42, May, 1967.

Huus, Helen (ed.). "Values for a Changing America," 52nd Schoolmen's Week Proceedings. Philadelphia: University of Pennsylvania, Philadelphia, 1966.

Iowa State University, Center for Agricultural and Economic Development. Family Mobility in Our Dynamic Society. Ames, Iowa: Iowa State University Press, 1965.

Johansen, Harold D. "An Evaluation of the Federally Reimbursed Distributive Education Programs in Iowa High Schools." Unpublished Doctor's dissertation, University of Iowa, Iowa City, 1963.

Johnson, Mildred L. "A Wage-Earning Oriented Experimental Program in High School Home Economics." Unpublished Doctor's dissertation, University of Wisconsin, Madison, 1965.

Johnstone, J. W. C. and R. J. Rivera. Volunteers for Learning. Chicago: Aldine Publishing Co., 1965.

Joint Committee of the U. S. Office of Education and the American Vocational Association. Objectives for Vocational and Technical Education in Agriculture. USOE Bulletin No. 4. Washington, D. C.: U. S. Government Printing Office, 1966.

Jones, Garth. Planned Organizational Change. Los Angeles: Center for Research in Public Organization, School of Public Administration, University of Southern California, 1964.

Jordan, Thomas Francis. The Problem of Vocational Education and the Catholic Secondary School. Washington, D. C.: Catholic University of America, 1942.

Kastner, Howard H., Jr. "The Economic Value of Community Junior Colleges," Junior College Journal, 36:3:29-34, November, 1965.

Katz, Martin. Decisions and Values: A Rationale for Secondary School Guidance. New York: College Entrance Examination Board, 1963.

Kaufman, Jacob J. "Job Placement and Employment Experience in High School Graduates," Research in Vocational and Technical Education. Madison, Wisconsin: Center for Studies in Vocational and Technical Education, University of Wisconsin, 1967.

_______, and Morgan V. Lewis. The Issues, Evaluation, and Potential of Vocational Education in Pennsylvania. University Park, Pennsylvania: Institute for Research on Human Resources, 1967.

_______, et al. The Role of the Secondary Schools in the Preparation of Youth for Employment. University Park, Pennsylvania: Institute for Research on Human Resources, 1967.

Keenan, Dorothy M. "An Exploration of Value Patterns." Unpublished Doctor's dissertation, University of Illinois, Urbana, 1962.

Kefauver, Grayson N. and Harold C. Hand. Appraising Guidance in Secondary Schools. New York: The Macmillan Co., 1941.

Keller, Franklin J. The Comprehensive High School. New York: Harper and Row, 1955.

_______. Vocationally Talented Pupils. New Brunswick, New Jersey: Division of Field Studies and Research, Rutgers--The State University, 1962.

Kent, Linwood E. "Vocational Agriculture in Virginia Since 1917 With Recommendations for Future Development." Unpublished Doctor's dissertation, Duke University, Durham, North Carolina, 1963.

Kemp, Barbara. The Youth We Haven't Served. A Challenge to Vocational Education. Washington, D. C.: U. S. Government Printing Office, 1966.

Keppel, Francis. The Necessary Revolution in American Education. New York: Harper and Row, 1966.

Kershaw, J. A. and R. N. McKean. Systems Analysis and Education. Record Memorandum, RM-2473-FF. Santa Monica, California: Rand Corporation.

Kimbrough, Ralph B. Political Power and Educational Decision-Making. Chicago: Rand-McNally, 1964.

Kincaid, Harry V. "A Preliminary Evaluation of Pre-Technical Programs in Secondary Education." Menlo Park, California: Stanford Research Institute. Currently underway.

_______, and Edward A. Podesta. "An Exploratory Survey of Proprietary Vocational Schools," Research in Vocational and Technical Education. Madison, Wisconsin: Center for Studies in Vocational and Technical Education, University of Wisconsin, 1967.

Kliever, D. E. The Vocational Education Act of 1963: A Case Study in Legislation. Washington, D. C.: American Vocational Association, 1965.

Kluckhohn, Clyde. "Have There Been Discernible Shifts in American Values During the Past Generation?", The American Style. New York: Harper and Row, 1958.

_______. "The Scientific Study of Values," Three Lectures. Toronto, Ontario: University of Toronto Press, 1959.

Kluckhohn, Florence. Variations in Value Orientations. Evanston, Illinois: Row, Peterson and Co., 1961.

Knoell, Dorothy M. Toward Educational Opportunity for All. Albany, New York: Office of the Executive Dean for Two-Year Colleges, 1966.

Krathwohl, D. R., B. S. Bloom, and B. B. Masia. A Taxonomy of Educational Objectives. New York: David McKay, 1964.

Krebs, A. H. "Guiding Principles for Evaluation Under the Vocational Education Act of 1963," Agricultural Education, 37:10:238-239, 253, April, 1965.

Krebs, Alfred H. College Success of Students Enrolled in the College of Agriculture. Urbana, Illinoia: Divison of Agricultural Education, College of Education, University of Illinois, 1961.

Kropp, Russell P. "Need for Involving Parents in Evaluation," Elementary School Journal, 57:140-144, December, 1956.

Kuhlman, John M. "The Dilemma of the Junior College," Junior College Journal, 37:6:68-70. March, 1967.

Lamar, Carl F. "Criteria for Determining the Need for Vocational Agriculture in Kentucky." Unpublished Doctor's dissertation, University of Kentucky, Lexington, 1957.

Lamberth, Edwin E. "Principals Evaluate Tennessee Vo-Ag Program," Agricultural Education Magazine, 36:274-275, June, 1964.

Landy, Edward and Arthur M. Kroll. Guidance in American Education. 3 vols. Cambridge, Massachusetts: Harvard Press, 1966.

Lassiter, R. L., Jr. "The Association of Income and Education by Region, Race, and Age," Southern Economic Journal, 32:1:15-22, July, 1965.

Lassiter, Roy, Jr. The Association of Income and Educational Attainment. Gainesville, Florida: University of Florida Press, 1966.

Leavitt, F. M. and Edith Brown. Prevocational Education in the Public Schools. Boston: Houghton Mifflin, 1915.

Lecht, Leonard. "The Changing Occupational Structure with Implications for Education," The Emerging Role of State Departments of Education with Implications for Vocational Education. Columbus, Ohio: Center for Vocational and Technical Education, Ohio State University, 1967.

Lester, Herschel T., Jr. "How Young Men in Missouri Communities Serviced by Vocational Agriculture Start and Progress in Farming." Unpublished Doctor's dissertation, University of Missouri, Columbia, 1960.

Lindeman, R. H. Educational Measurement. Glenview, Illinois: Scott, Foresman and Co., 1967.

Lindquist, E. F. Educational Measurement. Washington, D. C.: American Council on Education, 1951.

Lindvall, C. M. (ed.). Defining Educational Objectives. Pittsburgh, Pennsylvania: University of Pittsburgh Press, 1964.

Linson, Marvin G. "A Guide for Self-Evaluation of State Supervisory Programs in Vocational Education in Agriculture." Unpublished Doctor's dissertation, Ohio State University, Columbus, 1964.

Lippmann, Walter. The Public Philosophy. Boston: Little, Brown, and Co., 1955.

Lipset, Seymour Martin. "The Value Patterns of Democracy: A Case Study in Comparative Analysis," American Sociological Review, 28:515-531, August, 1963.

Logan, William B. "Criteria for Evaluation of a State-Wide In-School Distributive Education Program." Unpublished Doctor's dissertation, Ohio State University, Columbus, 1952.

Loomis, William G. A System for Planning, Implementing, and Evaluating Vocational Education. Salem, Oregon: State Department of Public Instruction, 1967.

Lowe, Phyllis K. "Student Evaluation of Home Economics Programs at the Secondary Level When Courses are General and Specialized." Lafayette, Indiana: Department of Education, Purdue University, 1962. (Mimeographed.)

Lucio, William H. "Evaluation of the Educational Program," Review of Educational Research, 29:2:165-176, April, 1959.

Lundbert, George. "Science, Scientists, and Values," Social Forces, 30:4: 373-379, May, 1952.

Lyon, R. "Vocational Development and the Elementary School," Elementary School Journal, 66:368-372, April, 1966.

McConnell, Helen L. "A Critical Analysis of the Implications of Selected Philosophies of Education for Home Economics Education." Unpublished Doctor's dissertation, Michigan State University, East Lansing, 1965.

McCormick, Louise W., Gene M. Shelden, and Robert K. White. "Planning and Evaluating a Clothing Course for Gifted Ninth Grade Students," Journal of Home Economics, 58:453-456, June, 1966.

McCracken, Thomas Cooke and Helen Etta Lamb. Occupational Information in the Elementary School. Boston: Houghton Mifflin Co., 1923.

McGivney, Joseph H. "Politics of Vocational Education." Unpublished Doctor's dissertation, University of Wisconsin, Madison, 1967.

McKitrick, Max O. "An Evaluation of Faculties and Facilities for Business Teacher Education in Ohio Colleges and Universities." Unpublished Doctor's dissertation, Colorado State College, Greeley, 1960.

McLure, William P. Federal Policy and the Public Schools. Washington, D. C.: American Association of School Administrators, 1967.

_______, et al. Vocational and Technical Education in Illinois: Tomorrow's Challenge. Urbana, Illinois: Bureau of Educational Research, University of Illinois, 1960.

McMillan, Claude and Richard F. Gonzales. Systems Analysis. Homewood, Illinois: R. D. Irwin, 1965.

Maddox, James G. et al. The Advancing South: Manpower Prospects and Problems. New York: The Twentieth Century Fund, 1967.

Magnificio, L. X. "The Retarded Need Special Classes," American School Board Journal, 137:2:33, August, 1958.

March, Georgianna B. Occupational Data Requirements for Education Planning. Madison, Wisconsin: Center for Studies in Vocational and Technical Education, University of Wisconsin, 1966.

Marshall, F. Ray and Vernon M. Briggs, Jr. The Negro and Apprenticeship. Baltimore, Maryland: Johns Hopkins Press, 1967.

Maslow, Abraham (ed.). New Knowledge in Human Values. New York: Harper and Row, 1959.

Mason, Ralph E. and Peter G. Haines. Cooperative Occupational Education. Danville, Illinois: The Interstate, 1965.

Masters, Nicholas A. and Lawrence K. Pettit. "Some Changing Patterns in Educational Policy-Making," Educational Administration, 2:2:81-100, Spring, 1966.

Matthews, Howard A. "Differentiate Between 'Rules' and 'Policies,'" American School Board Journal, 154:5:15-16, 42-44, May, 1967.

Mead, Margaret. "A Redefinition of Education," NEA Journal, 48:7:17, October, 1959.

_______. "Why is Education Obsolete?", Harvard Business Review, 36:23-30, November-December, 1958.

Merritt, Lindsey A. "A Study of the Progress of the High School Cooperative Distributive Education Program at Hillsdale High School, Durham, North Carolina." Unpublished Master's thesis, North Carolina College, Durham, North Carolina, 1964.

Michigan State University, College of Education. Vocational Education in Michigan. Final Report of the Michigan Evaluation Project. East Lansing, Michigan: The University, 1963.

Miller, Herman P. "Annual and Lifetime Income in Relation to Education," American Economic Review, 50:962-986, December, 1960.

Millet, Garland J. "Achievement of Male High School Dropouts and Graduates in Alabama Vocational Schools." Unpublished Doctor's dissertation, George Peabody College for Teachers, Nashville, Tennessee, 1965.

Mincer, Jacob. "On-the-Job Training: Costs, Returns, and Some Implications," Journal of Political Economy (Supplement), October, 1962.

Miner, David W. Educational Decision-Making in Suburban Communities. Cooperative Research Project No. 2440. Evanston, Illinois: Northwestern University, 1966.

Mississippi State Department of Education. "Evaluation of Vocational-Technical Education in Mississippi, 1966." Jackson, Mississippi: The Department, 1966. (Mimeographed.)

Mock, Perry O. "An Evaluation Study of the Federally Reimbursable Part-Time Cooperative Distributive Education Programs in the Public Secondary Schools of Arkansas." Unpublished Doctor's dissertation, University of Arkansas, Fayetteville, 1965.

"Modern Education and Human Values," Pitcairn-Crabbe Lectures. 5 vols. Pennsylvania: University of Pittsburgh, 1946-54.

Modesto Junior College, Adult Division. Continuing Employment Through Training. Modesto, California: The College, 1966.

______. Depleting Welfare Rolls. A Study of Welfare Recipients. Modesto, California: The College, 1967.

Mood, Alex M. "National Assessment," American Education, 3:4:11-12, 27, April, 1967.

Moore, Dorothy L. A Preliminary Draft of a Study of Vocational Education in Hawaii Public Secondary and Vocational Schools. 3 parts. Honolulu, Hawaii: Legislative Reference Bureau, University of Hawaii, 1966.

Moran, Alonzo G. "Employment and Public Policy," Public Policy and Manpower Resources. New York: Columbia University Press, 1964.

Morgan, Robert M. and David S. Bushnell. "Designing An Organic Curriculum." Washington, D. C.: Bureau of Research, U. S. Office of Education, 1966. (Mimeographed.), or Morgan, Robert M. and David S. Bushnell. "Designing An Organic Curriculum," National Business Education Quarterly, 39:5-14, March, 1967.

Morlan, Robert L. Intergovernmental Relations in Education. Minneopolis: University of Minnesota Press, 1950.

Morphet, Edgar L. and Charles O. Ryan (eds.). Implications for Education of Prospective Changes in Society. Denver, Colorado: Project Office, Designing Education for the Future, 1967.

______ ___ ______. Planning and Effecting Needed Changes in Education. Denver, Colorado: Project Office, Designing Education for the Future, 1967.

______ ___ ______. Prospective Changes in Society by 1980 Including Some Implications for Education. Denver, Colorado: Project Office, Designing Education for the Future, 1966.

______ , et al. Educational Organization and Administration. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1967.

Morrisett, L. N. "Educational Assessment and the Junior College," Junior College Journal, 37:12-14, March, 1967.

Morrison, Elting E. (ed.). The American Style. New York: Harper and Row, 1958.

Mueller, Kate Hevner. Educating Women for a Changing World. Minneapolis: University of Minnesota Press, 1967.

Myers, Charles Everett. Effectiveness of Vocational Education in Agriculture. Bulletin 82, Agricultural Series No. 13. Washington, D. C.: Federal Board for Vocational Education, 1923.

Myrdal, Gunnar. An American Dilemma. New York: Harper and Row, 1962.

_______. Value in Social Theory. New York: Harper and Row, 1958.

National Association of Secondary School Principals, National Committee on Secondary Education. Educating for Work. Washington, D. C.: The Association, 1967.

National Commission on Technology, Automation, and Economic Progress. Technology and the American Economy. Washington, D. C.: U. S. Government Printing Office, 1966.

National Education Association. Profiles of Excellence. Washington, D. C.: The Association, 1966.

_______, Association for Supervision and Curriculum Development. Evaluation as Feedback and Guide. Washington, D. C.: The Association, 1967.

_______, Educational Policies Commission. Universal Opportunity for Education Beyond the High School. Washington, D. C.: The Association, 1964.

_______, Educational Policies Commission and American Association of School Administrators. The Central Purpose of American Education. Washington, D. C.: The Association, 1961.

_______, National School Public Relations Association. School Boards in an Era of Conflict. Washington, D. C.: The Association, 1967.

_______, Research Division. Evaluation of Classroom Teachers. Research Report 1964-R14. Washington, D. C.: The Association, 1964.

_______. Shared-Time Programs: An Exploratory Study. Washington, D. C.: The Association, 1964.

_______. Small High Schools 1960-61. Washington, D. C.: The Association, 1964.

National Study of Secondary School Evaluation. Evaluative Criteria for Junior High Schools. Washington, D. C.: The Study, 1964.

Nelson, Margaret R. "Possible Contributions of Home Economics to the General Education of Women Enrolled in One and Two Year Post-High School Occupational Programs in Wisconsin Schools of Vocational and Adult Education." Unpublished Doctor's dissertation, University of Wisconsin, Madison, 1965.

Nelson, N. J., F. J. Woerdehoff, and J. K. Coster. Vocational Education in the Public Schools as Related to Social, Economic, and Technical Trends. 2 vols. Lafayette, Indiana: Purdue University, 1960.

Nerden, Joseph T. "National Assessment of Vocational Education," American Vocational Journal, 41:18-20, March, 1966.

New Jersey State Department of Education, Vocational Education Division. The World of Work: Increasing the Vocational Awareness of Fifth and Sixth Grade Pupils. Trenton, New Jersey: The Division, 1967.

New York State Education Department. Guides for the Review of Programs. Albany, New York: The University of the State of New York, 1967. (Series include guides for reviewing programs in agriculture, business, distributive education, home economics education, industrial arts, and trade and technical education.)

Nielsen, Duane M. "Relationship of High School Vocational Agriculture and Size of Home Farm to Establishment of Graduates in Farming." Unpublished Doctor's dissertation, Iowa State University, Ames, 1958.

North Atlantic Region. Follow-Up Studies of Graduates, Trade and Industrial Programs in Public Vocational and Technical High Schools. 3 reports. Washington, D. C.: U. S. Office of Education, 1961, 1962, 1963.

North Carolina Community College System. Manual for Institutional Self-Study. Raleigh, North Carolina: The System, 1965.

North Carolina State Department of Public Instruction. Evaluative Criteria. Raleigh, North Carolina: The Department, 1967. (Separate publications for agricultural education, business and office education, distributive education, home economics education, industrial cooperative training, introducing vocations, trade preparatory training, and local school administrative and supervisory personnel.)

O'Connor, Thomas J. Follow-Up Studies in Junior Colleges. Washington, D. C.: American Association of Junior Colleges, 1966.

Odell, William R. Education Survey Report for the Philadelphia Board of Public Education. Philadelphia, Pennsylvania: The Board, 1965.

Ohio State University, Center for Vocational and Technical Education. Agricultural Education. Columbus: The Center, 1967.

_______. Business and Office Occupations Education. Columbus: The Center, 1967.

_______. "Development and Testing of a Model for Evaluation of State Programs of Vocational Education." Columbus: Ohio State University. Project currently underway.

_______. Distributive Education. Columbus: The Center, 1967.

_______. Home Economics Education. Columbus: The Center, 1967.

______. Industrial Arts. Columbus: The Center, 1967.

______. Reviews and Syntheses of Research in Vocational and Technical Education. Columbus: The Center, 1967.

______. Technical Education. Columbus: The Center, 1967.

______. Trade and Industrial Education. Columbus: The Center, 1967.

Ohio State University, School Survey Service. Improving Opportunities for Vocational and Technical Education: Stark County Ohio. Columbus, Ohio: The Service, 1964.

______. Public Vocational-Technical Education in Oregon. Columbus, Ohio: The Service, 1958.

______. The Racine Vocational, Technical, and Adult School. Racine, Wisconsin. Columbus, Ohio: The Service, 1964.

______. Vocational Education in the Public Schools of South Carolina. Columbus, Ohio: The Service, 1963.

______. Vocational-Technical Education in the Public Schools of New Castle County, Delaware. Columbus, Ohio: The Service, 1964.

O'Kelley, G. L., Jr. and H. T. Lester, Jr. A Comparison of Farmers Who Studied Vocational Agriculture in High School and Those Who Did Not in Terms of Their Tendencies to Adopt Improved Farming Practices. Athens, Georgia: Department of Agricultural Education, University of Georgia, 1965.

Oleon, Sally J. Changing Patterns in Continuing Education for Business. Brookline, Massachusetts: Center for the Study of Liberal Education for Adults, 1967.

Orata, Pedro T. "Evaluating Evaluation," Journal of Educational Research, 33:641-661, May, 1940.

Osborn, Barbara L. "The Development of an Instrument to Determine Value Patterns of Homemaking Teachers." Unpublished Doctor's dissertation, Cornell University, Ithaca, New York, 1960.

Panel of Consultants on Vocational Education. Education for a Changing World of Work. Washington, D. C.: U. S. Government Printing Office, 1963.

Parody, Ovid C. "Searching for Quality in Secondary Schools," School Life, 47:3:24-28, December, 1964.

Parsons, Talcott and Kenneth B. Clark (eds.). The Negro American. Boston: Houghton Mifflin Co., 1966.

Pefper, Stephen C. *The Sources of Value*. Berkeley: University of California Press, 1958.

Pernice, Laura M. "Beliefs of Selected Laywomen Concerning the Teaching of Home Economics to Junior and Senior High School Pupils." Unpublished Master's thesis, Oregon State University, Corvallis, 1961.

Perrella, Vera C. "Employment of School Age Youth, October, 1966," *Monthly Labor Review*, 90:8:20-26, August, 1967.

Persons, Edgar A. and Gordon I. Swanson. *Educational Restrictions to Agricultural Successes and the Relationship of Education to Income Among Farmers*. Minneapolis: University of Minnesota, 1966.

Phipps, Lloyd J. "How to Develop and Evaluate Pilot Programs," *American Vocational Journal*, 40:26-28, September, 1965.

_______. "How to Evaluate a Program of Agricultural Education," *Handbook on Teaching Vocational Agriculture.* Danville, Illinois: The Interstate, 1965.

Pittsburgh Board of Education. *Vocational Education in the Pittsburgh Public Schools*. Pittsburgh, Pennsylvania: The Board, 1963.

Platt, William J. "Education-Rich Problems and Poor Markets," *Management Science*, 8:4:411, July, 1962.

Powell, Karl F. "An Evaluation of Advisory Committees of the Distributive Education Program of Kansas." Unpublished Master's thesis, Kansas State Teachers College, Emporia, 1965.

President's Committee on Youth Employment. *The Challenge of Jobless Youth*. Washington, D. C.: U. S. Government Printing Office, 1963.

Prosser, Charles A. and Thomas H. Quigley. *Vocational Education in a Democracy*. Chicago: American Technical Society, 1948.

Ramsey, Veva. "The Benefits and Problems in the Use of Advisory Groups in Vocational Home Economics in Illinois." Unpublished Master's thesis, Southern Illinois University, Carbondale, 1962.

Rarig, E. W. *The Community Junior College. An Annotated Bibliography*. New York: Teachers College Press, Columbia University, 1967.

Raths, R. E. *et al*. *Values and Teaching*. Columbus, Ohio: Charles E. Merrill Books, 1966.

Rempson, Joe L. "Community Control of Local School Boards," *Teachers College Record*, 68:7:571-578, April, 1967.

Renshaw, Edward F. "Estimating the Returns to Education," Review of Economics and Statistics, 42:318-324, August, 1960.

"The Returns to Georgraphic Mobility: A Symposium," Journal of Human Resources, 2:4:427-537, Fall, 1967.

Reynolds, Harris W., Sydney M. Grobman, and Ivan C. McGee. Evaluative Criteria for Vocational-Technical Programs. Harrisburg, Pennsylvania: State Department of Public Instruction, 1967.

Rice, Arthur H. "School Boards Reach New Heights of Importance," Nations Schools, 80:3:10, September, 1967.

Rivlin, Alice M. "Critical Issues in the Development of Vocational Education," Unemployment in a Prosperous Economy, William G. Bowen and Frederick H. Harbison, editors. Princeton, New Jersey: Princeton University, 1965.

Robeck, Shirley. "A Procedure for Evaluating Minnesota Diversified Vocations Clubs." Unpublished Master's study, University of Minnesota, Minneapolis, 1956.

Roberts, Roy W. Evaluation of the Effectiveness of Instruction in Agricultural Mechanics for Vocational Agriculture Students in Arkansas Who Enter Non-Farming Occupations. Fayetteville, Arkansas: Department of Vocational Teacher Education, University of Arkansas, 1965.

Robertson, Leonard. "An Exploratory Study of the Effects of the Cooperative Education Program in Beginning Occupations on Selected Employment Factors." Unpublished Doctor's dissertation, Colorado State College, Greeley, 1965.

Rockefeller Brothers Fund. The Pursuit of Excellence: Education and the Future of America. Special Studies Project Report V. Garden City, New York: Doubleday and Co., 1957.

Roeber, Edward C. "Let's Stop Trying to Separate the Vocational," American Vocational Journal, 42:7:18-20, October, 1967.

Roeder, John A. and H. M. Hamlin. "New Designs in Vocational and Practical Arts Education: The Northeast," American Vocational Journal, 42:4:16-18, April, 1967.

Root, Elihu. The Citizen's Part in Government. New York: C. Scribner's Sons, 1907.

Roper, Elmo. "Learning is Total," Saturday Review. 41:21:20, May 24, 1958.

Rosenberg, Jerry M. Automation, Manpower, and Education. New York: Random House, 1966.

Rosenberg, Morris. Occupations and Values. Glencoe, Illinois: Free Press, 1952.

Rountree, W. Daniel. "An Analysis of Distributive Education Students' Attitudes Toward Their Classroom Instruction, Their Work Experience and Careers in Distribution." Unpublished Master's thesis, University of North Carolina at Greensboro, 1965.

Rudman, Herbert C. "National Educational Assessment," Educational Administration, 3:2:115-129, Spring, 1967.

Russell, James E. Change and Challenge in American Education. Boston: Houghton Mifflin Co., 1965.

Russell, William F. How to Judge a School. New York: Harper and Row, 1954.

Ryley, Frederick. Report on the Manpower Development and Training Program at Mattoon, Illinois. Springfield, Illinois: State Board of Vocational Education and Rehabilitation, 1966.

Sahakian, William S. Systems of Ethics and Value Theory. New York: Philosophical Library, 1963.

Sanborn, Marshall P. "A Comparison of Four High School Guidance Programs in Terms of Four Criteria," Personnal and Guidance Journal, 43:293-298, November, 1964.

Sanford, Terry. But What About the People? New York: Harper and Row, 1966.

Sanford, Terry. Storm Over the States. New York: McGraw-Hill Book Co., 1967.

Schaefer, Carl J. Pennsylvania's Trade and Industrial Education Image. University Park: Pennsylvania State University, 1962.

Schreiber, Harry N. The Condition of American Federalism. Washington, D. C.: Senate Subcommittee on Intergovernmental Relations, 1967.

Schultz, Theodore W. The Economic Value of Education. New York: Columbia University Press, 1963.

Scoggins, Will. Labor in Learning: Public School Treatment of the World of Work. Los Angeles: Institute of Human Relations, University of California, 1966.

Scriven, Michael. "The Methodology of Evaluation," Monograph Series on Curriculum Evaluation No. 1. Chicago: Rand-McNally, 1967.

Seefeld, Kermit A. "Vocational Education in the Liberal Education Continuum," *Industrial Arts and Vocational Education*, 59:9:20-21, November, 1964.

Seibel, Richard R. "An Evaluative Study of the Distributive Education Programs in the Secondary Schools of the Suburbs of Chicago." Unpublished Master's study, Kansas Teachers College, Emporia, 1961.

Senge, Alice. *Vocational Education: An Annotated Bibliography of Selected References, 1917-1965*. Washington, D. C.: U. S. Office of Education, 1966.

Shotwell, H. D. and James A Bikkie. "Follow-Up of Cooperative Business Education Graduates, State of Kansas, School Years Ending 1955, 1958, 1961." Topeka: Kansas State Board of Vocational Education, 1962. (Mimeographed).

Shupe, Richard J. "A Question of Values: How High School Teachers View Cooperative Education." Unpublished Master's study, Michigan State University, East Lansing, 1962.

Simon, Kenneth A. and Vance W. Grant. *Digest of Educational Statistics 1966*. Washington, D. C.: U. S. Government Printing Office, 1966.

Smelser, N. J. and S. M. Lipset (eds.). *Social Structure and Mobility in Economic Development*. Chicago: Aldine Publishers, 1966.

Smith, Bradford. *Why We Behave Like Americans*. Philadelphia: J. B. Lippincott Co., 1957.

Smith, David A. "An Evaluation of Work Experience in Distributive Education in the Northern 21 Counties of Illinois." Unpublished Master's study, Northern Illinois University, DeKalb, 1962.

Smith, Harold T. *Education and Training for the World of Work*. Kalamazoo, Michigan: The W. E. Upjohn Institute for Employment Research, 1963.

Smith, Mortimer Brewster. *A Citizens' Manual for Public Schools.* Boston: Little, Brown, and Co., 1965.

Smith, Timothy L. "Work and Human Worth," *Christian Century*, 84:35:1094-1097, August 30, 1967.

Sneeden, David. "The Vocational Education Movement: A Critical Inventory of Policies," *Objectives and Problems of Vocational Education*, Edwin A. Lee, editor. New York: McGraw-Hill Book Co., 1938.

Sneeden, David S. *American High Schools and Vocational Schools in 1960*. New York: Teachers College, Columbia University, 1931.

Snowden, O. L. A Study of the Effectiveness of Vocational Education in Agriculture in Long-Tenure Departments in Mississippi. State College, Mississippi: Department of Agricultural Education, Mississippi State University, 1959.

Somers, Gerald G. "Retraining, An Estimate of Gains and Costs," Employment Policy and the Labor Market. Berkeley: University of California Press, 1965.

South Carolina State Commission for Technical Education. Procedures and Criteria for the Cooperative Review of Technical Education Centers. Columbia, South Carolina: The Commission, 1966.

Southern Regional Education Board. Technical-Vocational Education and the Community College. Atlanta, Georgia: The Board, 1965.

Spence, W. P. "Status of Industrial Arts Education," Industrial Arts and Vocational Education, 55:18, November, 1966.

Spencer, Steven M. Saturday Evening Post, 40:98, February 25, 1967.

Stake, R. E. "The Countenance of Educational Evaluation," Teachers College Record, 68:523-540, April, 1967.

Stanley, Julian C. Measurement in Today's Schools. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1964.

State of New Jersey, Department of Education. Follow-Up Study of Graduates of Vocational-Technical Education Programs, Class of 1964. Trenton, New Jersey: The Department, 1964.

"The Status of Industrial Education," American School Board Journal, Special Feature, 146:32-41, March, 1963.

Stiles, Lindley J. "Systems Approach in Education," Journal of Educational Research, 60:5:Inside Cover, January, 1967.

Stimbert, E. C. et al. "The Evolving Federal Role in Education," Official Report. Washington, D. C.: American Association of School Administrators, 1967.

Stufflebeam, David L. "A Depth Study of the Evaluation Requirements," Theory into Practice, 5:3:121-133, March, 1967.

Super, Donald E. "Floundering and Trial after High School." Project financed under Section 4(c), Vocational Education Act of 1963. Currently underway.

Sutton, Elizabeth W. Analysis of Research on Selected Aspects of Evaluation in Adult Education. Washington, D. C.: Cooperative Research Program, U. S. Office of Education, 1966.

Swanson, J. Chester. "Educational Activities Within Business and Industry in Richmond, California." Project financed under Section 4(c), Vocational Education Act of 1963. Currently underway.

Sweany, H. Paul. "The National Assessment of Vocational Education," American Vocational Journal, 41:14-16, March, 1966.

"Symposium on Rates of Return to Investment in Education," The Journal of Human Resources, 2:3:291-374, Summer, 1967.

"The Systems Approach Spreads to the Public Schools," Nation's Schools, 80:4:57-78, October, 1967.

Tennessee State Department of Education, Division of Vocational Education. Vocational Education: Evaluative Criteria and Instrument. Nashville, Tennessee: The Department, 1967.

Texas Education Agency. Report to the 58th Legislature on the Study of the Operation and Administration of Private Trade and Correspondence Schools. Austin, Texas: The Agency, 1963.

Thompson, Orville E. "How Important are Occupational Values of Students of Agriculture?", Agricultural Education Magazine, 35:238-240, May, 1963.

Tiedeman, David V. and Robert P. O'Hara. Career Development: Choice and Adjustment. New York: College Entrance Examination Board, 1963.

Torrence, Preston E. "The Tuskegee Experiment in Adult Training," Adult Leadership, 15:3:83-84, 96, September, 1966.

Tuckman, Bruce W. The Development and Testing of an Evaluation Model for Vocational Pilot Programs. New Brunswick, New Jersey: Rutgers--The State University, 1967.

Tul'chinskii, L. I. "Problems of the Profitability of Investments in Public Education," The Soviet Review, 8:1:46-54, Spring, 1967.

Tuttle, Edward M. "School Boards and Citizens Must Work Together," School Board Leadership in America. Danville, Illinois: The Interstate, 1958.

Tyler, Ralph W. "Assessing the Progress of Education," Phi Delta Kappan, 47:13-16, September, 1965.

U. S. Bureau of the Budget. Planning-Programming-Budgeting. Bulletin 66-3. October 12, 1965.

U. S. Bureau of the Census. U. S. Census of Populations: Occupational Characteristics. Washington, D. C.: The Bureau, 1961.

U. S. Chamber of Commerce. *Here's the Issue: Vocational Education.* Washington, D. C.: The Chamber, September 8, 1967.

U. S. Department of Commerce. *The Geographic Mobility of Labor*. Washington, D. C.: The Department, 1964.

U. S. Department of Labor. *Formal Occupational Training of Adult Workers*. Manpower Automation Research Monograph No. 2. Washington, D. C.: U. S. Government Printing Office, December, 1954.

_______. *Mobility and Worker Adaptation to Economic Change in the United States*. Manpower Research Bulletin No. 1. Washington, D. C.: The Department, 1963.

_______. *Selected Manpower Indicators for the States*. Washington, D. C.: The Department, 1963.

_______, Bureau of Labor Statistics. *Employment of High School Graduates and Dropouts in 1965*. Washington, D. C.: The Department, 1966.

_______. *Geographic Mobility and Employment Status, March 1962-March 1963*. Special Labor Force Report 44. Washington, D. C.: The Department, 1964.

_______. *Out-of-School Youth--Two Years Later*. Special Labor Force Report No. 71. Washington, D. C.: The Department, 1966.

_______. *Special Labor Force Report*. No. 32. Washington, D. C.: U. S. Government Printing Office, 1963.

U. S. Department of Labor, Manpower Administration. *Manpower Research Projects Sponsored by the U. S. Department of Labor, Manpower Administration.* Washington, D. C.: The Department, 1966.

U. S. House of Representatives, General Subcommittee on Education. *Hearings on the Vocational Education Act of 1963*. Washington, D. C.: U. S. Government Printing Office, 1963.

_______. *Hearings on the Vocational Education Amendments of 1966*. 2 vols. Washington, D. C.: U. S. Government Printing Office, 1967.

U. S. Office of Education. *Educationally Deficient Adults: Their Education and Training Needs.* Washington, D. C.: U. S. Government Printing Office, 1965.

_______. *Re-enforcing the Role of the States in Education*. OE-23050. Washington, D. C.: The Office, 1967.

_______. *A Review of Activities in Federally Aided Programs of Vocational and Technical Education, Fiscal Year 1964*. Washington, D. C.: The Office, 1966.

_______. *Vocational and Technical Education. A Review of Activities in Federally Aided Programs*. Washington, D. C.: U. S. Government Printing Office, 1964.

_______, Office of Program Planning and Evaluation. *An Analysis of Vocational Education in Our Secondary Schools*. Washington, D. C.: The Office, 1967.

University of Georgia, Department of Agricultural Education. *A Comparison of Farmers Who Studied Vocational Agriculture in High School and Those Who Did Not in Terms of Their Tendencies to Adopt Improved Farming Practices*. Athens, Georgia: The Department, 1965.

University of Illinois, Cooperative Extension Service. "Changing Value Orientations and Beliefs on the American Scene," *Illinois in Transition*. Urbana, Illinois: Cooperative Extension Service, University of Illinois, 1966.

University of Illinois, Department of Vocational-Technical Education. *A New Look at the Vocational Purposes of Home Economics Education*. Urbana, Illinois: The Department, 1963.

University of Kentucky, Bureau of School Service. *The Measure of a Good School*. Lexington, Kentucky: The Bureau, 1964.

University of the State of New York. *A Guide for the Review of a Program in Trade and Industrial Education*. Albany, New York: State Education Department, 1962.

University of Wisconsin, Industrial Relations Research Institute. *Retraining and Migration as Factors in Regional Economic Development.* Madison, Wisconsin: The Institute, 1966.

Vaizey, J. and J. D. Chesswas. *The Costing of Educational Plans*. Paris: International Institute for Educational Planning, UNESCO, 1967.

Values in American Education. Bloomington, Indiana: Phi Delta Kappa, 1964.

Venn, Grant. *Man, Education, and Work*. Washington, D. C.: American Council on Education, 1964.

_______. "Vocational Education for All," *National Association of Secondary School Principals Bulletin*, 51:32-40, March, 1967.

Verba, Sidney. "Democratic Participation," *The Annals of the American Academy of Political and Social Science*, 2:53-78, September, 1967.

Virginia State Department of Education. *A Follow-Up Study of Students of Vocational Agriculture in Virginia*. Richmond: The Department, 1963.

"Vocational Education: The New Approach," Nation's Schools, 80:2:36-43, August, 1967.

Vogley, Jane J. "A Comparative Study of Distributive Education and Non-Distributive Education High School Graduates." Unpublished Doctor's dissertation, University of Virginia, Charlottesville, 1958.

Vogt, Evon Z. and John M. Roberts (eds.). The People of Rimrock: A Comparative Study of Value Systems. Evanston, Illinois: Row, Peterson and Co., 1960.

Warmbrod, J. R. "State Policies for Distributing State and Federal Funds for Vocational Education in Agriculture to Local School Districts." Unpublished Doctor's dissertation, College of Education, University of Illinois, Urbana, 1962.

Warmbrod, J. Robert. "New Designs in Vocational and Practical Arts Education: The Central States," American Vocational Journal, 42:9:53-57, December, 1967.

Warrick, Glenn Dayton. "An Instrument for the Evaluation of a Secondary School Industrial Arts Program." Unpublished Doctor's dissertation, University of Maryland, College Park, 1955.

Wasserman, Paul. Measurement and Evaluation of Organizational Performance. Ithaca, New York: Graduate School of Business and Public Administration, Cornell University, 1959.

Webb, Earl S. Educational and Employment Status of 1960 Graduates in Vocational Agriculture with Implications for Vocational Guidance. Columbia, Missouri: Department of Agricultural Education, University of Missouri, 1961.

Weeks, Christopher. Job Corps: Dollars and Dropouts. Boston: Little, Brown and Co., 1967.

Weisbrod, B. A. External Benefits of Public Education. Princeton, New Jersey: Industrial Relations Section, Department of Economics, Princeton University, 1964.

Wenrich, Ralph C. A Study to Determine More Effective Ways of Using State and Federal Vocational Education Funds in the Further Development of Programs Operated by Local School Districts. Ann Arbor, Michigan: Office of Research Administration, University of Michigan, 1962.

_______, and Robert Crowley. Vocational Education as Perceived by Different Segments of the Population. Ann Arbor, Michigan: University of Michigan, 1964.

Wheeless, Lovena I. "An Evaluation of Business Education Programs of Public Secondary Schools in Northwest Arkansas." Unpublished Doctor's dissertation, University of Arkansas, Fayetteville, 1964.

White, Alpheus L. Characteristics of Local School Board Policy Manuals. Washington, D. C.: U. S. Government Printing Office, 1959.

______. Local School Boards. Organization and Practices. Washington, D. C.: U. S. Government Printing Office, 1962.

Whitlock, James W. and Billy J. Williams. Jobs and Training for Southern Youth. Nashville, Tennessee: George Peabody College for Teachers, 1963.

"Who Should Do the Assessing?", Phi Delta Kappan, 48:8:377, April, 1967.

Wiggins, Samuel P. Southern High Schools and Jobless Youth. Nashville, Tennessee: George Peabody College for Teachers, 1964.

Wilber, G. O. and N. C. Pendered. Industrial Arts in General Education. Scranton, Pennsylvania: International Textbook Co., 1948.

Wilcox, Glade. "Development of Criteria for the Evaluation of Local Programs of Trade and Industrial Education." Unpublished Doctor's dissertation, Indiana University, Bloomington, 1956.

Wilensky, Harold L. "Careers, Counseling, and the Curriculum," The Journal of Human Resources, 2:1:33-34, Winter, 1967.

Williams, Ferne D. "A Study of the Effectiveness of the Office Training Program at Flint Community Junior College as Related to the Employment Needs of Students." Unpublished Doctor's dissertation, Michigan State University, East Lansing, 1960.

Williams, Robin M., Jr. "Individual and Group Values," Annals of the American Academy of Political and Social Science, 371:1:20-37, May, 1967.

Williamson, William B. "Moral-Spiritual Values," Teachers College Record, 68:7:558-565, April, 1967.

Wilsing, Weston C. "An Appraisal of Business Education in the Urban and Rural Public High Schools of the State of Washington." Unpublished Doctor's dissertation, University of Washington, Seattle, 1959.

Wiseman, J. "Cost-Benefit Analysis in Education," Southern Economic Journal, 32:1:2:1-14, July, 1965.

Wolfbein, Seymour L. Education and Training for Full Employment. New York: Columbia University Press, 1967.

Wolfe, Dael L. and J. G. Smith. "The Occupational Value of Education for Superior High School Graduates," Journal of Higher Education, 27:201-213, April, 1956.

Worthington, Robert. "Planning and Strategies for Developing More Effective Teacher Education Programs," Institute on Critical Issues in Vocational and Technical Teacher Education in Small Colleges and Universities, A. P. Bell, editor. Center Seminar and Conference Report No. 8. Raleigh, North Carolina: Center for Occupational Education, North Carolina State University, 1967. Pp. 54-60.

Wyllie, Eugene D. An Evaluation Plan for Business Education Programs in High Schools Monograph 109. Cincinnati, Ohio: Southwestern Publishing Co., 1963.

Wyllie, Eugene Donald. "Criteria for the Evaluation of Secondary School Business Education Programs." Unpublished Doctor's dissertation, Indiana University, Bloomington, 1961.

Wynder, William Richard. "An Evaluation of Vocational Education in Agriculture in Delaware." Unpublished Doctor's dissertation, New York University, 1960.

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